

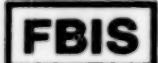
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MILITARY AFFAIRS

No.1654



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PARTY-POLITICAL WORK: MEETING OF PARTY SECRETARIES

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) pp 8-12

[Unattributed article: "The All-Army Meeting of Party Organization Secretaries"]

[Text] In 1982, the Sixth All-Army Meeting of Primary Party Organization Secretaries is to be held in Moscow. It will discuss the tasks of the party organizations in further increasing the combat readiness of the Soviet Armed Forces and the ways for strengthening initiative, activity and principledness in party work aimed at carrying out the tasks of Army and Navy training. The meeting will be a significant event in the life of the Armed Forces. It will enrich the party organizations and political bodies with new experience and will contribute to a stronger influence by them on all aspects of troop life and training. The meeting will play a major role in mobilizing the communists and all the personnel in carrying out the decisions of the 26th CPSU Congress and the instructions of the General Secretary of the CPSU Central Committee, Comrade L. I. Brezhnev, on defense questions.

The all-army primary party organization secretary meetings have become an important form in the work carried out by the CPSU Central Committee with the party aktiv of the Armed Forces. The convening of the next, Sixth All-Army Primary Party Organization Secretary Meeting with the participation of the command and political leadership is a new manifestation of the constant concern shown by the Communist Party and its Leninist Central Committee for further strengthening the defense might of our motherland and for raising the combat readiness of its Armed Forces.

The military councils, the commanders and the political bodies are beginning preparations for the meeting, they are widely explaining its great political significance and are taking measures to improve the work of each party organization as the political nucleus of the military and labor collective and as the center of daily ideological indoctrination activities. The outlined measures are being reviewed with the command and political leadership, at meetings of the political workers and secretaries of the party committees and bureaus. They are being discussed in the course of the report and election party meetings. The preparations for the meetings provide a good opportunity to take a close look at how the decisions of the 26th CPSU Congress are being carried out, to self-critically assess the results of military service, to determine the ways to eliminate existing shortcomings and to further raise the activity and militancy of the party organizations.

The primary party organizations play an important role in the activities of the Communist Party as the directing and guiding force of our society and comprise its basis. "In carrying out the great and diverse tasks of communist construction," the Accountability Report of the Central Committee to the 26th CPSU Congress re-emphasized, "a primary role belongs to the primary party organizations."

The Army and Navy political organizations are one of our party's militant detachments. Working under the leadership of the political bodies and in close unity with the solely-responsible commanders, they firmly and consistently carry out the party's policy in the Armed Forces, they indoctrinate the men in a spirit of communist ideas and do everything so that the motherland's glorious defenders, as was pointed out at the 26th CPSU Congress, in the future vigilantly stand guard over the peaceful, creative labor of the Soviet people.

The period which has passed since the last meeting has been full of important events in the life of both our people and their Armed Forces. These have been years of unstinting labor by the Soviet people and the steady fulfillment of the party congress decisions, the five-year plans and the party and government decrees. The adoption of the USSR Constitution became a major event as it reinforced the important historical point in the advancement of our nation toward communism, the building of a developed socialist society. Due to the efforts made by the party, the government and all the Soviet people, our Armed Forces have continued to grow stronger. Considering the tasks carried out by them, the activities of the political bodies and the party organizations have also been improved. Here an important role has been played by the well-known Decree of the CPSU Central Committee of 21 January 1967, the Regulation Governing Political Bodies and the Instructions to the CPSU organizations in the Soviet Army and Navy. All the life and activities of our party, the Soviet people and their Armed Forces are now being carried out under the profound impact of the decisions of the 26th CPSU Congress.

The Army and Navy commanders, political bodies and party organizations are moving toward the meeting in closely analyzing the results of their diverse activities. It must be pointed out that a majority of the Army and Navy collectives have successfully carried out the tasks posed for them during the training year as well as the assumed socialist obligations. The combat readiness and capability of the Soviet Armed Forces have risen to a new, higher level. The best confirmation of this was the "Zapad-81" [West-81] troop and naval exercise. As was pointed out by the USSR Minister of Defense, Mar SU D. F. Ustinov, the exercises were a testing of the combat skills of the troops and naval forces and became a report by our Armed Forces to the Communist Party and the government on their readiness to carry out any of the motherland's assignments to defend the socialist victories and peaceful labor of the Soviet people. The party organizations also made a major contribution to the successful holding of the exercises. By their active political and organizational work in the masses of soldiers, they in deed proved to be the political nucleus of the troop collectives and the center of daily ideological indoctrination activities.

Under the conditions of the difficult international situation and the increased military threat, the chief demand of the party and people upon the Armed Forces is to be in constant combat readiness. The Army and Navy commanders, political bodies and party organizations tenaciously and daily carry out this important state task.

They have acquired a good deal of experience in ensuring high effectiveness of the training process considering the specific nature of the troops and naval forces, the improved field, air and sea skills and the stronger military discipline. The practice of organizing the competition and directing it has been enriched. At present, when the results of the training year have been summed up, the generalizing of this experience assumes primary significance as well as the dissemination of all that is positive acquired in the subunits, units and on the ships, particularly among the initiators of the competition in the services and branches of troops, the districts, troop groups and fleets, in the course of preparing for the meeting.

At the same time it must be considered that, as the results of the training year have shown, in certain formations, units and ships, the influence of the party organizations on the most important aspects of combat readiness, training and indoctrination of the personnel is still not sufficiently high. At times the party organizations do not know the true state of affairs in the training of the mer, they do not show real concern for the high quality execution of combat training plans, they do not provide a principled evaluation for instances of simplification and weaknesses in exercises and training and they tolerate irresponsibility among individual communists. Proper attention is not given everywhere to correctly organizing the socialist competition and particularly to raising its role in improving the combat skills of the personnel and in more successfully mastering the weapons and military equipment by all the personnel. There are units and ships where the communists do not make a sufficient effort in strengthening military discipline and uniting the collective. Individual party members and candidate members do not set an example in service and conduct.

Many of these shortcomings, for example, are inherent to the tank unit party organization where Maj M. Shklyayev is the party secretary. Here the questions of combat training are discussed without delving deeply into its condition, and the main areas in the training process are not brought out. The party committee is not concerned with significantly increasing party influence on the quality and effectiveness of combat training, finding unrealized opportunities and putting them into use. It does not analyze the role of the communists in improving the training process, it does not deal strictly with those who do not serve as an example for others and fight really for the quality of the exercises and training. It is no accident that at one of the inspections many communists showed poor results in their personal training.

The Army and Navy party collectives are urged in fact to delve deeply into all aspects of the unit's or ship's life, to objectively and self-critically assess the situation in them and along with the commanders and their deputies for political affairs to create in the party organizations an atmosphere of exactingness and intolerance for any shortcomings which even to the slightest degree reduce combat readiness. It is important to instill in all the personnel a high feeling of responsibility for carrying out the socialist obligations and achieving the planned heights of combat improvement.

One of the decisive conditions for successfully carrying out the responsible tasks confronting the troops and naval forces is a further strengthening of conscious military discipline and organization in each unit and on each ship. The role of the primary party organizations as a reliable support for the commanders in this

exceptionally important matter is hard to overestimate. They unite the communists, including the officers of the regimental and ship level and these hold an important place in maintaining firm proper order. These party members and candidate members are closest of all to the soldiers and sailors, sergeants and petty officers and they have an opportunity to directly influence each of them by word and deed. An absolute majority of the communists proceed in precisely this manner. However, comrades are still encountered who themselves commit deviations from the requirements of the Soviet laws, regulations and orders and who overlook improper relationships among fellow servicemen and instances of covering up for each other. Such behavior by the communists at times remains beyond the party's reach. And here it is wise to recall the demand of the 26th CPSU Congress that our attitude toward those who behave unworthily, who violate the Party By-Laws and the standards of party morality, has been, is and will be irreconcilable.

To constantly and steadily increase the effectiveness of organizational and indoctrinational work aimed at strengthening military discipline means to be primarily concerned with the strengthening of one-man leadership, to support the strong-willed and demanding commanders and chiefs, to deal strictly with persons guilty of violating the standards of military life, and to indoctrinate the personnel in a spirit of the demands of the regulations, the military oath, our heroic revolutionary, labor and military traditions.

The life and activities of the troops clearly confirm the truth that the decisive means for the party's impact on the combat training and discipline of the personnel has been and remains the example set by the communists in training and service and their active organizational and political work among the masses of soldiers. It is pleasing to note that in many Army and Navy party organizations there has been a move to a more profound and responsible assessment of the activities carried out by each communist and his personal contribution to increasing combat readiness, developing the socialist competition and strengthening discipline. These questions more and more often are becoming a matter of discussion at the party meetings. For example, these meetings have been held particularly professionally and actively in the party organizations of the Group of Soviet Troops in Germany and in the Far Eastern, Leningrad, Turkestan and certain other military districts. The hearing of reports by party members and candidate members at meetings and sessions of the party committees and bureaus as well as individual talks with them help to increase their responsibility for their personal contribution to the overall success. But, in some places, as they say, the virus of formalism has penetrated into this delicate atmosphere of intraparty relations. The hearing of reports and the holding of talks at times are turned into a campaign to encompass as many persons as possible. But the question is not of the scope but rather one of the effectiveness of the measures undertaken. Hence we must be constantly and unflaggingly concerned with the activities and the end results of our efforts to ensure the vanguard role of all the communists without exception in service and training.

The party places high demands on the ideological work of the party organizations. The decisions of the 26th Party Congress and the Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination" oblige the primary party organizations to be constantly concerned with making the content of ideological work more pertinent and its forms meet the present needs of the people.

All the political, organizational and ideological indoctrinational work of the party organizations, all our propaganda and agitation should be focused on bringing the ideas and tenets of the 26th CPSU Congress to the full awareness of each communist and to all the soldiers, workers and white collar personnel and to mobilize them to unswervingly carry out the tasks posed by the supreme party forum for the Armed Forces. The heart of ideological and political indoctrination activities has been and remains the developing of a communist ideology among our people, an activist position in life and intolerance for the manifestations of an alien ideology. An improving in the party training of communists will help to carry out these tasks. The Decree of the CPSU Central Committee "On Further Improving Party Studies in Light of the Decisions of the 26th CPSU Congress" is a program of activities for each organization in this area. Life itself requires a regular discussion of the questions of ideological work at the party meetings and at the committee and bureau sessions. In acting on the forward edge and in the thick of the masses, the primary party organizations must in fact become centers of daily ideological indoctrinational activities and achieve the active involvement of each communist in propaganda and agitation.

A high level of intraparty work is an indispensable condition for increasing the activity and militancy of the party organizations and for strengthening their influence on the life and training of the troops and naval forces. It is important that all the party organizations, in being guided by the decisions of the 26th CPSU Congress, persistently improve the methods of party influence on carrying out the tasks of military and political training and the strengthening of military discipline, that they do not permit elements of administration by mere injunction and that they do not assume functions not inherent to them. It is a question of steadily observing the Leninist standards of party life, to be even more concerned with the qualitative composition of the party ranks, to influence the correct selection, placement and indoctrination of the personnel, in all the party organizations to establish a spirit of criticism, self-criticism and intolerance of shortcomings and to improve control and the check on execution in accord with the requirements of the recent decree of the CPSU Central Committee. It is important to ensure the fuller utilization to the right to supervise the activities of the administration by the primary party organizations of the self-financing organizations.

Here a major role must be played by the report and election party meetings which are currently being held and at which a demanding discussion is underway on how the party collectives are carrying out the ideas of the 26th CPSU Congress. The decisions of these meetings, the critical comments and proposals of the communists must immediately be used as the basis for the daily activities of the party collectives.

A great deal remains to be done in order to improve party leadership over the Komsomol organizations. It is essential to more profoundly analyze their activities in light of the instructions of the 26th CPSU Congress and to be concerned with creating in each Komsomol organization, as was stated at the party congress, a vital and creative atmosphere and to raise the responsibility of the communists elected to the Komsomol bodies for this. It is important to support the young party members and candidate members in Komsomol work. It is a matter of honor for the party organizations to do everything so that the Komsomol members and young soldiers worthily greet the 19th Komsomol Congress.

Unflagging party attention must be given to the trade union organizations which unite in their ranks a large detachment of workers and white collars personnel. It is also essential to strengthen leadership over the activities of the people's control bodies.

A rise in the militancy of the primary party organizations is directly dependent upon the level of their leadership by the political bodies. These must thoroughly study and know the content of work in each party collective and the level of preparedness of its leaders and aktiv and they must promptly help them in carrying out organizational and ideological tasks. Life requires the strengthening of the battalion, company and equal party organizations and an intensification of their activities. There must be unflagging attention from the party bodies shown to the party organizations of the staffs and headquarters, schools, scientific research institutions, construction units and production enterprises. They employ a significant number of the Army and Navy communists who need constant help and support.

Rallied closely under the banner of the Leninist party, the Army and Navy communists are moving toward the All-Army Primary Party Organization Secretary Meeting. At the meeting they will give a collective report to the CPSU Central Committee and to the Soviet people on the great and fruitful work aimed at carrying out the decisions of the 26th CPSU Congress and at ensuring the security of our motherland and the entire socialist commonwealth. It is a task of great importance to even more persistently increase the activity and militancy of the primary party organizations in carrying out the responsible tasks which the party has set for the Armed Forces.

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TROOP INDOCTRINATION: SOCIALIST TRADITIONS

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) pp 13-21

[Article by Doctor of Historical Sciences, Prof, Maj Gen V. Konovalov: "Socialist Traditions and the Indoctrination of the Soldier-Patriot"]

[Text] The Soviet people of various generations are brought together by a profound love for their socialist fatherland and by a pride for its revolutionary accomplishments which have opened up new horizons for all mankind. A love for the homeland which has been transformed by the labor and talents of millions has been inspired by the greatness of the party's plans and its communist ideals. In unstinting loyalty to the cause of Lenin and to the banner of Great October lies the powerful source of Soviet patriotism, of the unbending tenacity of our people and their labor and military feats.

As was emphasized by the 26th CPSU Congress, it is the party's sacred duty to indoctrinate the workers in a spirit of Soviet patriotism and socialist internationalism and a proud feeling of belonging to the united great Soviet motherland. Indoctrinating the Soviet people, particularly the youth, in our glorious revolutionary, labor and military traditions plays an enormous role in shaping ideologically convinced and active builders and defenders of the new society. The propagandizing of socialist traditions and their creative development help to further strengthen the moral and political potential of our society and to raise the might of the Soviet Armed Forces.

Traditions embody historically formed experience as well as customs, standards and rules which are handed down from generation to generation. "Due to the simple fact," wrote K. Marx, "that each successive generation finds the productive forces acquired by the previous generation and these productive forces serve as a raw material for its new production, due to this fact a link is formed in human history and the history of mankind is formed and this becomes more the history of mankind the greater the productive forces of people and hence their social relations" (K. Marx and F. Engels, "Works," Vol 27, p 402).

From the positions of Marxist sociology, traditions are viewed as a reflection of economic and social life. No generation can exist without relying on the results of activities carried out by its predecessors. It adopts the existing traditions and creates new ones in accord with the altered conditions of its activities.

With the greater complicating of social development, traditions encompass all spheres of social life. A distinction is drawn between the traditions of a nation, a state, a class, political organizations, various collectives, groups and the family. There are also professional traditions including military ones and so forth. Within them it is possible to isolate both rational elements such as traditional ideas, concepts, as well as the emotional ones which are permanent social feelings, moods and habits. Traditions can be expressed in the form of actions and deeds carried out according to a certain norm or model. In performing the functions of the regulator of social relations, traditions operate as a universal means for preserving and passing on social experience and for involving new generations in social life.

Since the relationship between the past and the present has an involved, dialectical nature, so along with progressive traditions in life there are also always reactionary ones. The problem is that traditions in one way or another are linked to social consciousness to social psychology and in the area of feelings and habits various vestiges and prejudices in the conduct and awareness of people are retained particularly strongly. "The force of habit of millions and tens of millions," pointed out V. I. Lenin, "is a most terrible force" (PSS [Complete Collected Works], Vol 41, p 27).

It must be pointed out that in a class society, traditions are formed and develop under the influence of the ideology of different classes. Inherent to the working class and working masses are revolutionary, progressive traditions which contribute to the ongoing development of society. In opposition to them, many traditions of the exploiting classes are antipopular and reactionary. It is not surprising that an acute, unabating ideological struggle has been waged and is being waged around the attitude toward traditions and the evaluating of their essence and significance.

The founders of scientific communism viewed their teachings as a generalization of historical experience and primarily the experience of the revolutionary movement of all nations. They closely studied each particle of this experience in being intolerant of any distortions or underestimation of it.

The inspired continuer of the teachings of Marx and Engels, V. I. Lenin, saw a powerful factor for the development of human society in the use of historical experience. He pointed out that a socialist culture is created on the basis of assimilating and critically reworking the spiritual heritage of the past and all the values of world civilization. For this reason, in order to become a communist, Lenin taught, it was essential to enrich one's mind with a knowledge of all those riches which mankind had produced.

In founding a new type of proletarian party which should head all the workers in the struggle for democracy and socialism, V. I. Lenin endeavored with maximum completeness to consider and utilize in its activities all that was important and essential that had been provided by the theory and practice of the international revolutionary movement. He considered our party the legitimate heir of the progressive victories and revolutionary traditions of the Russian peoples.

In noting the great significance of traditions for indoctrinating new generations of fighters, V. I. Lenin demanded a creative attitude toward historical experience

and toward the revolutionary heritage. True Marxists, he wrote, preserve their heritage not like archivists preserve an old piece of paper. "To preserve a heritage in no way means to be limited by a heritage..." (PSS, Vol 2, p 542). A profound understanding of the modern world and of the objective laws of social development provides an opportunity to correctly assess the past and predict the future. This manifests the vital link of the times and which ensures the continuous handing on of the experience of the revolutionary struggle and creation from generation to generation.

The Communist Party has a considerate and Leninist attitude toward historical experience. It endeavors to help each Soviet person understand the great goals of the construction of communism, to find his place in the revolutionary transformation of society and to acquaint the youth with the remarkable traditions of the older generation. In emphasizing the close link between the nation's yesterday and the distance traveled by us with the setting of new tasks in his book "Vozrozhdeniye" [Rebirth], Comrade L. I. Brezhnev has written: "The scope of our plans, the scale and complexity of problems grow year by year and they must be solved on a new level and in a new manner. Here it is essential to consider the very rich practice of building socialism and the historical experience of the party and masses of people."

The overcoming of moribund traditions and habits and the development of the best character traits in the working classes occur in a process of fighting for the revolutionary transformation of social relations. A revolution, K. Marx and F. Engels pointed out, "is required not only because it is impossible to overthrow the ruling class by any other method but also because the overthrowing class only in a revolution can free itself of all the old abominations and become capable of creating a new basis for society" ("Works," Vol 3, p 70).

The victory of the Great October Socialist Revolution provided conditions for the creation and functioning of a political, cultural and social milieu in our nation which conformed to the vital interests of the masses of people. This served as the basis for the genesis and development of a new, higher type of patriotism, Soviet or socialist patriotism. In it, love for the homeland, for one's people, for its culture and progressive traditions is harmoniously fused with the love and loyalty of the workers to the socialist system and to the cause of communism. The patriotism of the Soviet people is profoundly permeated with the ideas of internationalism and this has become an indispensable trait of the Soviet way of life. The unity of the socioclass and national interests of the workers from all the nations and nationalities of our country, in being embodied in Soviet, socialist patriotism, immeasurably broadens the sphere of its manifestation and activity.

The boundless strength of true patriotism among the working masses was vividly apparent even in defending the victories of Great October against the joint pressure of international imperialism and internal counterrevolution. "Without this patriotism," said V. I. Lenin in December 1920, "we could not have defended the Soviet republic.... This was the best revolutionary patriotism" (PSS, Vol 42, p 124). With the start of peaceful socialist construction and during the years of the first five-year plans, the Soviet people consciously accepted sacrifices and hardships in order to quickly bring the motherland out of backwardness and to turn it into a powerful industrial-kolkhoz state. Patriotism of all the people was a natural result of the socialist changes and the titanic indoctrinational activities carried out by the Leninist party. This patriotism burned like a vivid flame during the

years of the Great Patriotic War. Having defended their motherland and in making a decisive contribution to saving mankind from fascist enslavement, our people demonstrated to all the world what people are capable of when they defend real socialism built with their own hands.

Soviet patriotism of all the people embodies the best progressive traditions established among the workers of all our republics. In the struggle to build socialism and defend it, new general Soviet socialist traditions arose, including: loyalty to the cause of the Communist Party and to the unified socialist fatherland, fraternal friendship and mutual aid among the Soviet peoples, a high feeling of social duty, true collectivism, concern for preserving and adding to national wealth and so forth. These traditions, in being embodied in the flesh and blood of the Soviet people, themselves serve as a matter of our national pride and as a source of inspiration and new patriotic accomplishments.

The most important result of the unstinting work of the Soviet people has been the construction of developed socialism which has raised our motherland to the heights of social progress. On the basis of the fundamental changes in the nation's economic, political, social and spiritual life, a historically new social and international community, the Soviet people, has been formed and become ever-stronger. This has contributed to the further development of the patriotic awareness of the masses. The Soviet man, as was pointed out at the 26th CPSU Congress, is a conscientious worker, a person of high political culture, a patriot and an internationalist. He has been indoctrinated by the party, by the heroic history of the nation and by our entire system. He lives the full life of the creator of a new world.

Certainly from this it does not follow that we have already settled all questions related to the formation of the new man or to the all-round development of the individual. The party has set the task of further improving ideological and political indoctrination. It is essential that each generation in coming into conscious life master the weapon of historical truth and a knowledge of the laws and prospects of social development. Indoctrination in the heroic revolutionary, military and labor traditions also effectively contributes to this. It arms the youth with a clear understanding that our present and future rest on the values and social experience created and won by previous generations.

In patriotic indoctrination it is important to consider not only the historical traditions but also the objective elucidation of the present and the propagandizing of real socialism's accomplishments. New traditions are being born and developing before our very eyes. These are expressed in the remarkable accomplishments of the urban and rural workers who are unstintingly carrying out the decisions of the 26th CPSU Congress and the quotas of the 11th Five-Year Plan as well as in the successes of the Army and Navy personnel who are vigilantly standing the combat watch in protecting the peaceful labor of their fatherland.

The nation's achievements strengthen the feeling of national pride and help each Soviet person feel the vital strength and advantages of socialism as well as look confidently to the future and see the new horizons in the struggle for communism. In our times the linking of the fates of each person with the fates of the people and all mankind is becoming ever-closer. This idea has been clearly brought out in

the novel by Chingiz Aytmatov "I dol'she veka dlitsya den'" [A Day Longer Than a Century]. The novel's hero Yedigey Zhagel'din, a former frontline soldier, in working at a railroad siding lost in the steppe, acutely feels an inseparable link with the history of his people, with the life of the nation and with the global questions stirring all the people of our world.

In the course of building a new society, new social traditions are also formed. The party views their development as one of its fundamental tasks. "In supporting the progressive traditions of each people," states the CPSU Program, "and in making them the common heritage of all the Soviet people, the party in every possible way will develop new revolutionary traditions for the builders of communism which are common to all the nations."

In patriotic indoctrination it is very important to consider the particular features of the ideological struggle between the two social systems. In acting evermore perfidiously and brazenly, our class enemies are directing the brunt of their ideological attacks primarily at the Soviet youth. Various theories have been concocted about a supposed "conflict of generations" in the USSR and the "special role of youth," idleness and consumerism are extolled and so forth. The efforts of the defenders of capitalism are aimed at "undermining" the class awareness of the youth, at shaking its belief in communist ideals and loyalty to the motherland and at disrupting the revolutionary succession of generations.

It would be wrong to ignore these subterfuges and not to consider the effect of alien views and hostile ideology on individual persons. There must be an uncompromising, aggressive struggle against the subversive activities of all and any servants of imperialist reaction. Their evil slander of socialism and of our youth should be opposed by political vigilance and monolithic ideological unity among all generations of the Soviet people. The 26th CPSU Congress pointed out that the main thing in the work with youth and with its leading detachment, the Komsomol, is to help in developing a generation of politically active, knowledgeable persons who love work and know how to work and are always ready to defend their motherland.

In explaining the essence of the task of shaping patriotic awareness in the process of indoctrination in revolutionary, military and labor traditions and the approach to carrying this out, Comrade L. I. Brezhnev said: "Of course, it is not a question of precisely copying the revolutionary from the first years of Soviet power. Each new generation of revolutionaries carries out new historical tasks and finds the appropriate methods, its own style of struggle and life which no other could evolve for itself. It is essential not to copy the heroes of the past but rather to adopt the essence of their revolution-tempered characters, to adopt their revolutionary ardor, their profound communist conviction, their wholehearted dedication to the great cause of our party, their ardent romanticism and inextinguishable hate for the revolution's enemies; it is essential to adopt all of this and apply it to carrying out the diverse tasks which presently confront us in building communism," ("Leninskim kursom" [By the Leninist Course], Vol 1, p 382).

The tasks of building communism are inseparable from the task of securely defending the victories of Great October and all that has been created by the labor of our people and the peoples in the fraternal socialist countries. For this reason the indoctrination of the Soviet youth in the revolutionary, military and labor

traditions inevitably presupposes their military-patriotic conditioning, including when the youths are on active military service. The Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination" and which was described by the 26th Party Congress as a long-term document, particularly points to the indoctrinational role of the Soviet Armed Forces, service in which is remarkable schooling in labor and military skills, moral purity and courage, patriotism and comradeship. It emphasizes the necessity of adding to the glorious Army and Navy traditions.

The dangerous pitch of international tension caused by the increased aggressiveness of imperialism and by the actions of the militant U.S. circles and their Beijing supporters increases the responsibility of the USSR Armed Forces for ensuring the security of our nation and for defending the cause of socialism and peace in the world. In this regard, there is an increased role for the patriotic and international indoctrination of the Soviet military which is seen by the party as a key to carrying out any tasks when our Armed Forces must carry them out. As was pointed out at the meeting of the Army and Navy command and political leadership held in June 1980, the indoctrination of patriotism and internationalism can be considered effective if, as a result of it, each serviceman is aware of his life as a part of the fatherland's present and future while our aid to other peoples in their struggle for freedom and independence is seen as a natural duty of the Soviet nation.

The patriotic and international indoctrination of the military organically includes their indoctrination in the revolutionary, military and labor traditions as their heroic and patriotic content brings together the enormous historical experience of the Soviet people and their imperishable spiritual values. The able use of this experience and these values makes it possible to comprehensively carry out the tasks of political, military, labor and moral indoctrination and to more successfully develop high moral-combat qualities among the motherland's defenders.

The core of socialist traditions is comprised of the revolutionary traditions which were forged in the crucible of the battles of the working masses and have been most fully embodied in the history of the Leninist party and in the experience of its historical struggle for the revolutionary renewal of the world. As an army of the revolution, the Soviet Armed Forces from the moment of their founding were organized on an unbreakable solidarity with the working people. The deepest source of the invincible might of our Army and Navy which amazes and terrifies our enemies lies in the political awareness, the profound ideological conviction of the Soviet military, their wholehearted dedication to the socialist motherland and their readiness to carry out a feat for the sake of the great revolutionary, communist ideals.

Marxist-Leninist teachings play a primary role in the shaping of patriotic awareness and these teachings comprise its ideological basis. The study and propagandizing of Marxism-Leninism, the history and policy of the CPSU, the works and speeches of Comrade L. I. Brezhnev hold the main place in the work of the commanders, political bodies and party organizations in the personnel's ideological and political indoctrination. For this purpose in the Armed Forces a system of political studies has been organized and this encompasses all categories of servicemen. Diverse forms and means of mass political work are employed, including: unified political days, Lenin lectures and lessons, lectures and talks, special-subject evening meetings

with the participating of veterans of the revolution, the Civil and Great Patriotic wars and labor heroes.

The immortal image of V. I. Lenin, the vital feat of his associates and the ardent revolutionaries of the Lenin guard, the ideas and deeds of the communists for whom the highest moral duty was to be out front in combat and in labor and to dedicate all their forces unstintingly to serving the socialist motherland--all this priceless revolutionary experience of the party and the older generations serve our youth as a model for imitation. The duty of the communists, as was stressed at the 26th CPSU Congress, is to pass on all the time-tested conviction of the rightness of Marxism-Leninism and all the rich experience of the party to the new generation. This is a dependable guarantee that the Soviet Union will always bear the banner of communism high!

The books by Comrade L. I. Brezhnev "Malaya Zemlya," "Vozrozhdeniye" and "Tselina" [Virgin Lands] are a rich treasuretrove of experience in communist indoctrination. They profoundly and clearly disclose the sources of mass heroism by the Soviet patriots during the years of wartime hardship and peacetime labor and they convincingly show how historical experience must be employed for carrying out the pleasant tasks of communist construction. Permeated by a spirit of party loyalty, optimism and confidence in the inexhaustible abilities of the socialist system and in the creative forces of the people, they carry a charge of enormous indoctrinational and mobilizing force.

The experience of building mature socialism and the program for its further strengthening and development have been thoroughly depicted in the decisions of the 26th CPSU Congress. For this reason a thorough study and elucidation of the congress materials and the mobilizing of the men to struggle to carry out its decisions in practical deeds are presently becoming the center of ideological work. This work, as the member of the Politburo of the CPSU Central Committee, the USSR Minister of Defense, Mar SU D. F. Ustinov has pointed out, should permeate the entire training and indoctrinational process, it should be to the point, effective and accessible and should bring each man under its influence. Its results should be embodied in an increased level of military and political training and combat readiness of the units, ships and formations.

Soviet patriotism presupposes a fusion of political awareness, high civil feelings and labor activeness of the people into a single entity. An attitude toward labor as a patriotic duty has become the criterion for the ideological and moral qualities of the Soviet man and a source in forming and developing remarkable labor traditions. From the pioneers of the communist volunteer Saturday workdays in the difficult year of 1919 to the heroes of the 11th Five-Year Plan, there has been a continuous succession of patriotic deeds which add to the material and spiritual wealth of the socialist motherland.

Our Armed Forces, in being a part of the people, live the same life as them. The men of the Army and Navy take an active part in the nation's sociopolitical life and in carrying out the diverse tasks of economic and cultural construction. Many labor traditions of the Soviet people, in particular those related to the development of the competition, have become widespread in the Armed Forces. At the same time, military service is specific and even under peacetime conditions it often

involves a risk to life but its goals are exceptionally noble. In exercises and training close to actual combat, during missile launches and in the standing of alert duty, during long ocean voyages and in flights under bad weather conditions, the men develop the qualities needed for victory over any aggressor who would dare encroach on our motherland.

In recognizing their high patriotic duty to defend the peaceful labor of the Soviet people, the men of the Army and Navy in the process of intense combat training and in the course of the socialist competition, set examples of valor and military skill. Thousands of servicemen have been awarded USSR orders and medals in recent years for carrying out the command's assignments, for successes in military and political training and for mastering the new equipment. This confirms that military service forms people who are loyal to their duty and are true Soviet patriots.

The military traditions of the Soviet Armed Forces are inseparable from our revolutionary and labor traditions. These are rules, customs and standards of conduct for the military which are historically brought about and handed down from generation to generation and involve the carrying out of combat missions and the standing of military service in peacetime. The content of military traditions is determined by the historical conditions of their formation, by the social and state systems, by the dominant ideology as well as by the nature and purpose of the army. While in the capitalist armies reactionary traditions are cultivated aimed at defending the power of the exploiting classes, suppressing the actions of the working masses and enslaving other peoples, the military traditions of the Soviet Armed Forces embody the experience of the people's struggle against social and national suppression and the best of the heroic past of the Russian Army and Navy. These were shaped in the flames of the three Russian revolutions and in the years of the Civil and Great Patriotic wars and continue to develop now.

Our military traditions are a new type of traditions which are socialist in their nature. These were formed under the conditions of the Soviet system and under the influence of a Marxist-Leninist ideology and the leading role of the Communist Party in military-organizational development. At present their content is determined by the particular features and purpose of the Soviet Armed Forces which must defend the interests of the socialist state of all the people and be the bulwark of universal peace. The most important military traditions of the Soviet Army and Navy are: wholehearted loyalty to the cause of communism and to the socialist motherland, constant readiness to defend it; class hate for imperialism and intolerance of the enemies of the working people; loyalty to the military oath and to military duty, mass heroism, military comradeship, respect for the commander and his protection in combat; love for the home army and navy, one's unit and ship, loyalty to the colors and to the USSR Navy Flag; a desire to improve military skills, to strengthen military discipline and increase political knowledge; an unceasing struggle for high vigilance and combat readiness for the unit or ship; military association with the men of the fraternal socialist armies. The contents and propagandizing of military traditions comprise the heart of military indoctrination, they are an inseparable part of moral-political and psychological training for the personnel and they contribute to the shaping of class self-awareness and the high moral-political and military qualities of the men.

Among all peoples, a feeling of patriotism has long been particularly apparent in the cause of defending their nation against enslavers. The best, progressive military traditions arose and were developed precisely in the battles for the liberty and independence of the motherland. In history's first war to defend victorious socialism, in the Great Patriotic War of the Soviet people against fascist invaders, from its very outset heroism assumed a mass, national nature. In the course of the war there were around 13 million decorations of the men with combat orders and medals. Some 10,900 orders decorated the colors of the formations and units of the operational Army and Navy.

On 18 September 1981, the 40th anniversary of the Soviet Guards was celebrated as a national holiday. This honorary title was won by 17 combined-arms and tank armies, by 90 rifle, cavalry, tank, mechanized and air corps and by over 200 divisions. No other army has known such mass heroism and military valor. This manifests the profound ideological conviction of the Soviet people, their unshakable belief in the rightness of socialism and an awareness of a personal responsibility to defend it.

The military traditions of the Soviet Armed Forces are the focal point of the military experience which is a national achievement and a subject of pride and glory for our people. It is important not only to sacredly preserve these traditions as a reminder of the heroic past. It is even more important to hand them down to new generations so that they carry forward the torch of military glory. This is why our party has shown constant concern for indoctrinating the men in military traditions. As was emphasized at one time by M. I. Kalinin, the propagandizing of traditions should be so organized that "each new recruit, in arriving in a regiment, knows not only its number but also its entire combat history, all its heroes and combat decorations, all its victories in competitions and maneuvers, that he be proud of his regiment and defend its honor everywhere."

In the Army and Navy a great deal is done so that each young soldier from the very first days of service becomes thoroughly acquainted with the traditions of the Armed Forces, his military district, fleet, formation, unit or ship. This work is organized under the immediate leadership of the commanders and political bodies. The party and Komsomol organizations, the military press organs and the cultural and educational institutions are actively involved in it, too. Diverse forms, means and methods of indoctrinating traditions are employed, including in the course of the political studies of the men and combat training exercises. In addition, special lectures, reports and talks are held devoted to propagandizing heroic traditions, there are meetings with participants of the Great Patriotic War, visits to museums and military glory rooms, hikes to the sites of battles, solemn rituals on holidays, the viewing of the corresponding TV broadcasts and discussions of the works of creative and military memoir literature. All of these and many other forms of heroic patriotic indoctrination have become part and parcel of the life of the men and leave a profound trace on their conscience.

Traditions live in the hearts and are being added to in the service deeds of the men of the 1980's. The sons and grandsons of the heroes of the Great Patriotic War have not experienced the severe hardships which was the lot of their fathers and grandfathers. But they, as Comrade L. I. Brezhnev said at the 26th CPSU Congress, are loyal to the heroic traditions of our army and our people. Each time when the interests of national security and the defense of peace require, when it is

essential to aid the victims of aggression, the Soviet soldier presents himself to the world as a selfless and courageous patriot, an internationalist ready to surmount any difficulties.

The words from the greetings of the delegation from the USSR Armed Forces at the party forum resounded as an oath of loyalty to the fatherland: "All the Soviet military, from soldier to marshal, solemnly assure the 26th CPSU Congress, our Leninist party and the heroic Soviet people that we are always on guard."

The recent "Zapad-81" [West-81] Troop and Naval Exercises were visible affirmation of the high combat readiness of our Armed Forces. These were conducted on the lands of Belorussia and the Baltic where blood was shed copiously by the heroes of the Great Patriotic War and which preserve the memory of their military valor. In acting as if on the front line and like guardsmen, the men of the 1980's showed that the baton of the heroic traditions of the frontline soldiers is in dependable hands.

The Army and Navy have gained rich experience in heroic patriotic indoctrination and in developing high moral-political and military qualities among the personnel. At the same time the existing very rich opportunities have not yet been used everywhere for increasing the effective indoctrination of the men in the revolutionary, military and labor traditions. The instructions of the 26th CPSU Congress on the need to reorganize many areas and spheres of ideological work envisage the implementing of measures to further strengthen the indoctrinational role of the Armed Forces.

The more than 60 years of development along the path of October in our society have set down remarkable socialist traditions which reinforce the very rich experience of the revolutionary struggle and creation. In a speech at the opening ceremony of a memorial complex in the hero city of Kiev, Comrade L. I. Brezhnev said: "Great are the people who constantly feel a living link with their history and who can derive all the best from their historical traditions and make this alive today. This remarkable quality is completely inherent to the Soviet people."

Communist ideological loyalty in being fused together with loyalty to the revolutionary, military and labor traditions of our people, gives the Soviet people an unusual strength of spirit. The party skillfully unites and enriches the experience of all the generations of fighters for the victory of the revolution, for socialism and communism in linking them by common interests and ideals.

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ARMED FORCES

OFFICER TRAINING: IMPROVING WORKING METHODS

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[Article by Candidate of Historical Sciences, Docent, Maj Gen N. Kozlov: "The Main Condition for Achieving Success"]

[Text] The 26th CPSU Congress, in being an outstanding event in modern times, made an enormous contribution to the theory and practice of scientific communism, it thoroughly outlined the tasks of communist construction and set specific ways for further progress in a society of developed socialism, in ensuring its dependable defense and strengthening the defense capability of our motherland.

The carrying out of these tasks depends upon many factors and, undoubtedly, to a large degree upon improved control on all levels and a better work style for the personnel. The party sees in a Leninist style the most important condition for success in party leadership and a prerequisite for implementing all our plans. "The style and method of leadership," emphasized Comrade L. I. Brezhnev in the Accountability Report of the CPSU Central Committee to the 26th Congress, "are an important question for all the party and for all the people." The mastery of a Leninist style is also of enormous significance for the military personnel.

This style represents an aggregate of permanent, characteristic features and traits of activity based upon the inexorable principles of Lenin's teachings about the party, Leninist standards of party life and the principles and methods of party leadership. Residing on the firm foundation of Marxist-Leninist theory and practice and on a profound knowledge of the laws of social development, it is constantly being enriched and improved, particularly under the conditions of mature socialism.

The party congresses have played an enormous role in establishing and consistently developing the Leninist standards of party life and in continuously improving the style and methods of leadership. The 25th CPSU Congress thoroughly disclosed the essence of the Leninist style having pointed out that this is a creative style that is foreign to subjectivism and permeated with a scientific approach to all social processes. It presupposes great exactingness for oneself and for others, it excludes complacency and resists any manifestations of bureaucracy and formalism. The 26th CPSU Congress reemphasized that "it is a question of elaborating a style of work which would organically bring together efficiency, discipline and bold initiative and enterprise. It would combine practicality and professionalism with

aspirations for great goals. A critical attitude toward shortcomings with unswerving confidence in the historical advantages of the path selected by us."

The concern of the CPSU for improving the methods of party leadership and for establishing a Leninist style of work in all levels of the party, state and economic apparatus and in the activities of the cadres is an objective pattern. It is caused by the dynamicness of our life, by the increased scale and complexity of the tasks in communist construction, by a continuous rise in the creative activeness of the masses, by the further development of socialist democracy and by the necessity of strengthening the communist indoctrination of the workers. This is also tied to increased responsibility among the cadres for carrying out the state plans and for disclosing and better utilizing the existing opportunities and to the necessity of mobilizing all our society's creative potential. "The struggle for efficiency and quality," Comrade L. I. Brezhnev pointed out, "means that each leader and specialist must master a Leninist style in work and Leninist scientific management."

The demands are also drawing upon the work style of military personnel. This derives from the particular features of Armed Forces development at present. The distinguishing features in the present stage of Army and Navy development are their qualitatively new, predominantly collective types of weapons and military equipment requiring able and coordinated actions, the altered organizational structure and the immeasurably increased general educational and cultural level of the personnel. It is essential to bear in mind that the development of the USSR Armed Forces is being carried out under the conditions of strengthening and developing cooperation with the socialist armies within the Warsaw Pact. All of this increases the role of the military personnel and places new demands upon the style of their work.

It is also essential to consider such an aspect as the youthfulness of military personnel. At present one out of every two officers is under the age of 30. The units and formations are under the command of officers and generals who were born during the war years or in the post-war period. These are men full of strength and energy and capable of enduring the hardship and burdens of military service. But at times they lack organizational skills and vital experience and their work style requires continuous improvement.

The increased demands placed upon the style of activities of the military personnel are also caused by the fact that under the conditions of increased international tension, their responsibility has risen for the constant combat readiness of the troops and naval forces, for defending the victories of socialism and for dependably ensuring peaceful conditions for the creative labor of the Soviet people. As is known, at present, as was emphasized at the 26th CPSU Congress, the aggressiveness of the imperialist policy has increased sharply and this applies particularly to the United States. The military-political rapprochement of the United States, Japan and China is becoming a reality. All of this increases the demands placed on the combat readiness of the Armed Forces and necessitates that the nature of the training and indoctrinational process be brought as close as possible to combat conditions.

As we see, objective factors necessitate increased attention to improving the style of activities of the commanders, political workers, engineers and all officer personnel.

Among the basic, most essential traits of a Leninist style one must mention first of all high communist ideological conviction. Its foundation or basis is comprised of a scientific ideology, strong theoretical knowledge, wholehearted loyalty to the cause of communism and an unshakable conviction of the correctness of party policy.

The CPSU sees in communist ideological loyalty a fusion of knowledge, convictions and practical action. Such ideological loyalty is tested and affirmed by life, in daily labor and by practical results. V. I. Lenin, in speaking of those in whom word and deed differ, pointed out that for them "convictions are no deeper than skin deep." The Decree of the CPSU Central Committee "On Improving Ideological and Political Indoctrination" emphasized that a knowledge of revolutionary theory and party policy should be turned in the Soviet people into convictions and into an activist position of a steadfast fighter for communism and against any manifestations of alien ideology and provide an impetus for action.

A characteristic trait of the Leninist work style is principledness. A most important aspect of a principled attitude toward a question is a self-critical approach on the part of the personnel to the methods and results of their activities, a desire in all ways and in everything to proceed from the interests of the party and the people to dedicate unreservedly to them their forces, abilities and knowledge and to consistently and steadily carry out CPSU policy in the Armed Forces. A principled communist sets the tone in combat training and is a zealous supporter of proper order and an indefatigable fighter for the new and advanced. He objectively assesses the successes, he sees the difficulties and shortcomings and is intolerant of everything which even to the slightest degree reduces the combat readiness of the troops.

Life provides numerous examples of the principledness of Army and Navy communists. Here is one of them. In unit X there was the question of reducing the time for performing maintenance on military equipment. Here along with the commander the communists were the supporters of this undertaking. They evidenced a very responsible attitude toward solving the given problem. There was the question of whether this would directly or indirectly influence a rise in combat readiness. But not everyone was taken up with this desire. Some reasoned differently: if we surpass the standard a new goal will be set and this will mean nothing but trouble for us. It was obvious that this question required a frank and principled discussion. This was held at one of the party meetings. Officers Yu. Kizimov, K. Titov and others who spoke in the debate pointed out that the equipment and the methods of its combat employment are being continuously improved. What satisfied us yesterday cannot satisfy us today. Thus, achievements must be assessed from the viewpoint of the new, more complex tasks, unutilized reserves must be put to use and we must keep pace with life. In their judgments, as in their actions, the communists should be guided by the fundamental Leninist demand: Do not be satisfied with the ability which our previous experience has developed in us but rather move continuously from the easier tasks to the more difficult ones.

The major discussion also had a major repercussion. In the party organizations statements were heard by officer communists who had various complaints addressed to them, they were asked how they were concerned with their combat improvement and the carrying out of socialist obligations, whether they understood the prospects for a further struggle for high combat readiness, whether they supported the good

initiative of the innovators and in what manner they intended to increase their contribution to the common cause. As a result, the struggle for a high pace in combat work encompassed all the men and led them to the intended target. They learned to work more quickly, in significantly exceeding the standards. The missile troops received an excellent grade for combat launches. This is the result of a principled approach by a party organization to solving the problems of personnel combat training.

The 26th CPSU Congress gave great attention to developing in the leaders such a trait of the Leninist style as professionalism. Even at the dawn of Soviet power, V. I. Lenin viewed the slogan of practicality and professionalism as a main and basic quality. The ability to actually set up and organize a matter and to carry it out fully was considered by Lenin to be a precious quality in a leader. He sarcastically spoke of workers who "quite often give magnificent advice and instructions to follow but turn out to an absurd, embarrassing or even shameful degree to be 'cripples' incapable of carrying out this advice and these instructions or providing practical control over how the word is actually turned into a deed."

True professionalism is incompatible with rule by mere injunction, bluster, bureaucracy, red tape, petty interference or hurried decisions and actions. At the same time it requires reasonable initiative, independence and established control and check on execution. Professionalism, as Lenin understood it, is the ability to focus forces on the main thing and the capacity to carry out something started and achieve the realization of a decision. Professionalism is the desire to find the best procedures, methods and ways for successfully fulfilling the party's plans and for carrying out its political line.

The demand to show initiative and professionalism, and great attention was given to this at the 26th CPSU Congress, applies fully to the military personnel, too. To a large degree the precise organization of the training process, the effectiveness of the socialist competition and the unconditional fulfillment of orders, directives and other leading documents on the spot depend upon their professionalism and initiative. For example, here is what Maj Gen Avn P. Torokov had to say about the staff worker, Lt Col V. Ivanov. "Repeatedly I have heard," he wrote, "good things in the units about Lt Col V. Ivanov and about the officers of the service which he heads. They go profoundly into the organization of the training process and the competition, they skillfully propagandize all that is advanced in training methods and in the upkeep and operation of military equipment, and they provide effective help to the officers on the spot in eliminating shortcomings. In all of this one must particularly see the great contribution of Lt Col Ivanov. Both superiors and subordinates say of him 'an efficient man'."

It is a very brief but quite complete description. How did the staff officer merit this? Ivanov, when a year ago he headed a service in a formation's headquarters, encountered the fact that there were many complaints addressed to his subordinates in the formations and units. He made a detailed study of the work style of each man and established the nature of the oversights and their causes. He waged a constant and uncompromising battle against the shortcomings and took measures so that they were not repeated. In working to improve the quality of administrative labor and in improving the work style of the service's officers directly in the units and subunits, Ivanov demanded from them clarity and specificity in everything. Over

time the work style of the specialists began to noticeably change for the better. The number of various instructions, letters and telephone calls was reduced. The officers spent more time in the units, they went more deeply into the problems and difficulties arising there and took the necessary measures to eliminate the shortcomings. And this told tangibly in deeds. The service headed by Lt Col Ivanov became one of the best in the formation's headquarters.

The supreme forum of our party devoted a great deal of attention to a creative, scientific approach to the job. The essence of this approach, as Lenin taught, is that science "does not remain a dead letter or a fashionable phrase," but rather truly is turned into a component element of daily life. Under present-day conditions, scientific knowledge is assuming ever-greater importance. "The Communist Party," emphasized the 26th CPSU Congress, "proceeds from the view that the construction of a new society without science is simply inconceivable." A scientific approach prevents manifestations of subjectivism and the errors which inevitably arise from this.

In the troops great importance is given to widely introducing scientific achievements into the activities of the commanders, the political workers, the engineer and technical personnel. The publishing and dissemination of military-scientific works, the systematic holding of military-scientific conferences, the active involvement of the officers in scientific and research work, the propagandizing of military pedagogical knowledge and advanced experience--all of this helps in mastering a scientific approach to carrying out the tasks and helps to improve the style of the personnel's activities.

The party teaches the personnel to constantly strengthen and broaden their ties with the masses. The strengthening and deepening of these ties are perhaps the most important of Lenin's demands. "Live in the thick of things. Know the mood. Know everyone. Understand the masses. Be able to approach them. Win their absolute confidence. Do not isolate the leaders from the led masses or the vanguard from the entire working army...." These words of V. I. Lenin in a concentrated manner express that most important leadership principle from which each communist leader should proceed.

Our party has consistently and steadily carried out Lenin's instructions on the need for the greatest possible broadening and strengthening of ties with the people and has been constantly concerned for their interests. It sees in this the primary prerequisite for taking correct decisions and an essential condition for success in communist construction. "We are well aware from the experience of both the past and the present," said Comrade L. I. Brezhnev in the concluding speech at the 26th CPSU Congress, "that the role of society's leading force does not come automatically. This role is earned and won in the course of the constant, unceasing struggle for the interests of the workers. This role is reinforced by the fact that the party is continuously deepening its ties with the masses of people and lives for their needs and concerns."

In the Army and Navy the ways for further improving the style of activities among the personnel and for strengthening their ties with the masses of soldiers are constantly at the center of attention of the military councils, the political bodies and party organizations. This was brought up at the scientific conference of the

USSR Ministry of Defense and the Main Political Directorate of the Soviet Army and Navy on the Books of Comrade L. I. Brezhnev "Malaya Zemlya" and "Vozrozhdeniye" [Rebirth] (1978), at the meeting of the Army and Navy command and political leadership and at conferences in the military districts, troop groups and fleets. Many speeches were devoted to this subject at the 18th Party Conference of the General Staff of the USSR Armed Forces. In speaking at it, the member of the Politburo of the CPSU Central Committee, the USSR Minister of Defense, Mar SU D. F. Ustinov, emphasized that the party gives primarily significance to improving the style and methods of leadership based upon Leninist administrative principles.

In order to master a Leninist style of work, it is essential to profoundly study Marxist-Leninist theory, the party congress materials and other party documents. In the Army and Navy an ordered and effective system of ideological and political training has been organized for officer personnel. This makes it possible for the commanders, the political workers and all officers to master Marxism-Leninism as an integrated teaching and to profoundly reason out the urgent problems of communist construction and the defense of the socialist fatherland. At the same time, Marxist-Leninist studies instill in the military personnel a need to apply the obtained knowledge in practice and they help to refine the art of political and organizational work in the masses.

The professional training and competence of the leaders have a great impact on work style. The reorganization in military schooling carried out in recent years has made it possible to further raise the educational level of our personnel. While on the eve of the 25th CPSU Congress in the Army and Navy 41 percent of the officers, generals and admirals had a higher military and specialized military education, by the 26th Congress the figure was 68 percent. In the Strategic Rocket Troops 77 percent of the officers have a higher education while in the Air Defense Troops virtually every officer and general has a higher military or specialized military education.

In the USSR Armed Forces the line of the 26th CPSU Congress is constantly being carried out for increasing the professional training and improving the administrative activities of the personnel. In the troops a great deal is being done so that the officers not only reinforce the diverse knowledge obtained in military schools but also deepen this in the process of military service and keep pace with the development of military affairs, scientific and technical progress.

To improve the work style of the personnel means, at the same time, to develop in them the skills of organizing and conducting party political work and to arm them with the ability to rely on the party and Komsomol organizations, on the strength of the Army and Navy community. An absolute majority of the leading command, political, engineer and other personnel take an active part in party political work and are passionate propagandists of Marxist-Leninist theory and CPSU policy. They direct Marxist-Leninist study groups, political training for warrant officers ["praporshchik" and "michman"] as well as political exercises for the rank-and-file and sergeants. In the Strategic Rocket Troops, for example, all the formation commanders and more than 70 percent of the unit commanders direct Marxist-Leninist study groups. Many officers are volunteer lecturers and members of agitation-propaganda collectives and groups.

As is known, the level of ideological indoctrination and its effectiveness depend largely upon the direct involvement of the leadership in it. The political bodies and party organizations see to it that the communist leaders constantly enrich their knowledge in the area of Marxist-Leninist theory, that they skillfully combine administrative functions with indoctrinational activities and constantly maintain a healthy, creative atmosphere in their collectives. The unified political days and regular speeches by the leaders to the servicemen and employees have become a tradition and assumed a definite system and planning. It is important, as is being emphasized in the course of the report and election party meetings now being held, that in them a greater accent be placed on the problems of further strengthening military discipline and uniting the military collectives as well as on the questions of moral and legal indoctrination and increasing the sense of responsibility for maintaining constant vigilance and high combat readiness of the units and ships.

To develop a correct style of work in our personnel is not only to arm them with all the best produced by troop practice but also to erect a barrier on the path of all that bureaucratizes it or contributes formalism and red tape. Here the best, tested means is the developing of criticism and self-criticism. The 26th CPSU Congress pointed to the need to further establish a spirit of self-criticism and intolerance of shortcomings in all the party organizations.

The specific feature of military service which excludes any criticism of orders and instructions from commanders and superiors in no way reduces the role of criticism and self-criticism in the indoctrination of officer personnel or in improving the style of their work. The commanders, political bodies and party organizations, in being guided by the demands of the party and its Central Committee, make wide use of this effective means for combating conceit and bluster as well as complacency and other shortcomings in the practical activities of the personnel. Here they see to it that criticism is comradely, sincere, proven and objective while self-criticism should be honest and permeated with a readiness to immediately set to correcting mistakes and shortcomings. At the report and election party meetings now being held, the communists are responding acutely to oversights in the work and are criticizing those comrades who are slow in changing over the style of their activities.

Such a demanding approach has helped more than one collective disclose weak points, unused reserves and to overcome the lag. A convincing example of this could be, in particular, the life and training for the crew of the escort vessel "Razitel'nyy" in the Red Banner Black Sea Fleet. It moved from the laggards to the leaders and won the title of outstanding. In this change a major role was played by the atmosphere of criticism and self-criticism created in the collective as well as the responsible attitude shown by the party bureau and each communist toward rectifying the disclosed shortcomings.

In improving the work style of the personnel, the party pays great attention to the skillful organization of control and check on execution of the decrees and directives of the leading bodies. The demand to constantly improve control and the check on execution as a most important means for indoctrinating the personnel has been embodied in the CPSU Program and By-Laws, in the materials of the 26th Party Congress and in the Decree of the Party Central Committee "On Further Improving Control and Check on Execution in Light of the Decisions of the 26th CPSU Congress." The commanders, political bodies, the staffs and party organizations, in being guided by

these documents, are seeing to it that control is not reduced to a dispassionate recording of successes or the stating of discovered shortcomings. In using the results of a profound analysis of the state of affairs on the spot, they are endeavoring to provide specific recommendations on how to better organize the work. Due to the measures undertaken, the planning, specificness and effectiveness of control are rising. More and more it is being accompanied by the organizing of execution and specific aid on the spot in eliminating shortcomings. The political bodies and party organizations give particular importance to the carrying out of the instructions of the 26th CPSU Congress on the need to strengthen control of execution and to make it systematic, efficient and simultaneous from the top to the bottom.

The style of a leader's work is largely described by how the socialist competition is organized in a collective. As is known, V. I. Lenin put its organization among the most important tasks of Soviet power. The 26th CPSU Congress, having noted the enormous scope of the socialist competition, emphasized that it forges models of an understanding of social duty, heroism and self-sacrifice in labor.

In the USSR Armed Forces, the socialist competition has assumed a mass nature and has become an inseparable component part of the entire training and indoctrinational process and an important factor in improving military skill, indoctrinating high moral-political qualities in the men and strengthening the combat readiness of the Army and Navy. Due to the socialist competition which has developed widely in the current training year under the motto "For High Combat Readiness and Firm Military Order!" the units and subunits have achieved significant goals in raising the combat skills of the personnel. This was clearly confirmed by the results of the "Zapad-81" [West-81] Exercises. Here, in a dynamic and difficult situation as close as possible to the conditions of real combat, the troops and naval forces convincingly demonstrated a strong unity of high technical equipping, military skills and unshakable morale. The exercises clearly demonstrated the ability of the commanders, political bodies and party organizations to organize the socialist competition and to direct its mobilizing force at achieving the highest results in combat training.

The ubiquitous introduction of a Leninist work style in the practices of the leadership is a most important prerequisite for lasting and high indicators in the training and indoctrination of the personnel, for further strengthening discipline and raising the combat might of the Soviet Armed Forces. It is the duty of the commanders, the political workers and all the Army and Navy communists to constantly master a Leninist style of work which we right call a priceless heritage of our party and in which we see one of the main conditions for achieving success in carrying out the great and responsible tasks posed for the motherland's defenders by the 26th CPSU Congress.

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ARMED FORCES

TROOP INDOCTRINATION: INSTRUCTOR OUTLINES

Educational Aspects of Military Service

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) pp 65-72

[Article by Candidate of Historical Sciences, Capt 3d Rank G. Dorozh: "A School for Ideological Tempering and Military Skills"*]

[Text] The given exercise will make it possible for the students to thoroughly understand that service in the USSR Armed Forces is for each Soviet soldier true schooling in life, schooling in military service and military skills, ideological tempering and moral maturing, discipline and military comradeship. It is recommended that it be conducted with the soldiers and sailors in the first training period after studying the subject "The 26th CPSU Congress on the Necessity of High Vigilance and Constant Combat Readiness of the Soviet Armed Forces. The Tasks of the Personnel in the New Training Year."

Some 6 hours are assigned to the exercise from the spare time. Of this time, 2 hours should be planned for a lecture (narration), 2 assigned for independent work by the students and 2 hours for a seminar (talk).

In the course of the lecture (narration), it is advisable to take up the following questions: 1. V. I. Lenin and the CPSU on the historic purpose and indoctrinational role of the USSR Armed Forces. 2. A school of ideological tempering, military service, discipline and courage. 3. Military friendship and comradeship--necessary moral-military qualities of the Soviet soldiers formed in the process of service.

In a brief introductory speech it is essential to point out that our state and the other fraternal socialist nations are waging a steady struggle for peace and for preventing the danger of war. However, these efforts are being greeted by rabid resistance from the most aggressive circles of imperialism and the international reaction headed by the United States.

* Materials for political exercises on the subject "The Soviet Armed Forces--A School of Ideological Tempering, Military Skill, High Discipline, Combat Friendship and Comradeship."

Under these conditions, exceptionally great responsibility for the fate of peace in the world has been entrusted to our Armed Forces. The Soviet military, as was emphasized in the field inspection of troops participating in the "Zapad-81" [West-81] Exercises by the member of the Politburo of the CPSU Central Committee, the USSR Minister of Defense, Mar SU D. F. Ustinov, possesses everything necessary to deal a crushing rebuff to any aggressor.

The USSR minister of defense concluded that at these exercises, in a dynamic and difficult situation as close as possible to the conditions of actual combat, the troops and naval forces convincingly demonstrated a strong combination of high technical equipping, military skill and unshakable morale. The personnel which participated in the exercises unstintingly carried out their military duty, they demonstrated courage, initiative and the ability to act and employ their weapons in combat, and they showed high political maturity, volitional qualities and a readiness to securely defend our socialist fatherland and our friends and allies. The "Zapad-81" Exercises again clearly confirmed that the Soviet Armed Forces are a fine living school for each man where the finest moral, political and military qualities of the motherland's defenders are thoroughly developed and improved and where he undergoes development and testing as a Citizen, Patriot and Internationalist.

1. V. I. Lenin and the CPSU on the Historic Purpose and Indoctrinational Role of the USSR Armed Forces

In beginning to give the material of the first question, the students' attention must be drawn to the prediction by the founders of Marxism-Leninism of the historical fact that a socialist army will be head and shoulders higher than the capitalist armies and that the proletariat will promote from its own ranks and indoctrinate new fighters. "In strength, agility and intelligence," commented F. Engels on this, "they will surpass all those soldiers which a modern (read: capitalist--author) society could provide (K. Marx and F. Engels, "Works," Vol 7, p 512).

Furthermore, it must be pointed out that V. I. Lenin repeatedly voiced similar ideas and judgments. He taught that our army, being a socialist type military organization, differs fundamentally from the armies of the exploiting states. While the capitalist troops are a weapon of reaction and suppression of the working masses, for conducting an aggressive imperialist policy of plunder and piracy on the international scene as well as for seizing and enslaving other nations, the socialist army is the weapon of people's power. It must, in using Lenin's words, protect the victories of the revolution and our people's power, the soviets and the entire new truly democratic system against all the enemies of the people (see PSS [Complete Collected Works], Vol 35, p 216).

In pointing to such a high purpose of the Armed Forces of the world's first socialist state, V. I. Lenin pointed out that our Red Armymen can endure hardships which the tsarist Army would never have tolerated. "This is explained by the fact," taught Lenin, "that each worker and peasant who has taken up arms knows for what he is fighting and consciously sheds his blood for the sake of the triumph of justice and socialism" (PSS, Vol 41, p 121).

In quoting these words by Lenin, the propagandist should point out that for more than 63 years now, the Soviet Armed Forces has honorably carried out its honorable historic mission in ensuring the inviolability of our motherland's frontiers. Along with the armies of the fraternal socialist nations, they are a powerful shield preventing the imperialists from carrying out their aggressive plans of unleashing a new world war and their attempts to recover the role of the disposers of human destinies.

The 26th CPSU Congress provided a thorough evaluation of the present development level and technical equipping of the Soviet Armed Forces and that exceptionally high role which our Army and Navy play in indoctrinating active, conscious builders and defenders of communism who are totally dedicated to its ideals. "At present in the ranks of the motherland's defenders," said Comrade L. I. Brezhnev at the congress, "are now the sons and grandsons of the heroes of the Great Patriotic War. They have not undergone the severe testings which were the lot of their fathers and grandfathers. But they are loyal to the heroic traditions of our army and our people. And each time that the interests of national security and defense of peace require, when it is essential to help the victims of aggression, the Soviet soldier presents himself to the world as a selfless and courageous patriot, an internationalist ready to overcome any difficulties" ("Materialy XXVI s"yezda KPSS" [Materials of the 26th CPSU Congress], p 66).

The basic purpose of the Soviet Armed Forces at the present stage is to ensure the dependable defense of socialism's revolutionary victories and favorable external conditions for the successful construction of communism in our nation. These truly historic tasks have been set down in the current Constitution ratified by the USSR Supreme Soviet on 7 October 1977. It states that the USSR Armed Forces were created and universal military service established for the purpose of protecting socialist victories, the peaceful labor of the Soviet people and the state's sovereignty and territorial integrity. The Constitution's main demand on the Armed Forces is to securely defend the socialist fatherland and to be in constant combat readiness guaranteeing an immediate rebuff of any aggressor.

In the exercise it is advisable to read to the students Articles 31, 32, 62 and 63 of our Basic Law having drawn their attention to the fact that the defense of the socialist fatherland is a sacred duty for each Soviet citizen while military service in the ranks of the USSR Armed Forces is an honorable obligation of the Soviet citizens. Then it is essential to emphasize that our military, in understanding well their duty to the motherland, are always ready to defeat any aggressor who dares violate the integrity of its frontiers. The USSR Armed Forces have won the profound gratitude and respect of all the Soviet people. They are not only a school for military skill but also a good school for ideological and physical conditioning, discipline and organization.

Our men are closely rallied around the Leninist party and the Soviet state. They are totally dedicated to the ideals of communism. They are marked by high political awareness and responsibility for the motherland's faith, by ardent Soviet patriotism and socialist internationalism and by unsurpassed moral, political and military qualities. Military service, as was pointed out by the member of the Politburo of the CPSU Central Committee, USSR Minister of Defense, Mar SU D. F. Ustinov, strengthens a young, often unformed nature, it gives the young men technical and professional knowledge and teaches collectivism, steadfastness and endurance.

The Decree of the CPSU Central Committee "On Further Improving Ideological and Political Indoctrination" has termed military service a school of labor and military skills, moral purity and courage, patriotism and comradeship. In this assessment of the party lies recognition of the high social significance of military service by the Soviet military personnel and of that great role which the USSR Armed Forces play in the communist indoctrination of the younger generation.

Precisely the noble aims and tasks of service in the Soviet Army and Navy give it great indoctrinational significance. It is essential to also point out the difference of our military's military service from the service of soldiers in the capitalist armies. It is essential to explain in detail to the students just what is the difference, having drawn their attention to the fact that as a result of intense brainwashing, deceit and graft, the armed forces personnel in the imperialist states obey the ruling classes, bearing the entire burden of the defects of the exploiting society and being a blind tool in carrying out the criminal plans of the monopolistic bourgeoisie. The amorality in the functions of such armies and their reactionary essence are completely obvious. The capitalist way of life and the bestial laws and orders prevailing in these armies corrupt the souls of the personnel, contribute to the manifestation of the basest feelings in the servicemen and engender criminality sadism and the thirst for plunder and violence in the military. "The combat training methods, the cruelty inculcated in the soldiers in the various military units and armed services are diverse," commented the American writer D. Dankin, bearing in mind the U.S. Army. "But the essence remains the same.... Thousands of young soldiers, in undergoing such training, become murderers." And such a description can be made for any other army in the capitalist world.

Having drawn this conclusion, the propagandist should emphasize that there is no such thing and cannot be any such thing in the Soviet Armed Forces. The noble aims of defending the socialist fatherland and a profound awareness by each serviceman of his personal responsibility for the unfailing fulfillment of his military duty inspire the personnel in our army and navy to unstinting military service for the sake of communism and they help in actively developing high moral, political and military qualities in the men. In carrying out their universal military service, virtually the entire male population of the nation undergoes service in the Armed Forces for a certain time. And this occurs in their youth, when character is being formed and when an ideology and conscientious attitude toward life are being shaped. Thus, the army becomes a great school in life for our youth and a component part of the entire Soviet indoctrination system.

In further developing this idea, the propagandist should point out that the Soviet Army is well prepared for this. This is a truly socialist army in which there cannot be any caste spirit or any antagonism between the officers and soldiers. The Soviet Army is a model of firm and conscious discipline. In indoctrinating new generations of Soviet soldiers, for the motherland it prepares men who are morally and physically strong, courageous, with firm communist convictions and with a high awareness of their social duty. These qualities are essential not only for a soldier but also for a citizen of our nation. Those who have undergone the schooling of military service can be relied on both in peacetime creative labor and, if need be, in the hour of military testing. "The indoctrination of such people," emphasized Comrade L. I. Brezhnev, "is...a major contribution by the commanders and political workers, the party and Komsomol organizations to the great national cause

of building a communist society" ("Leninskii kursom" [By the Leninist Course], Vol 2, p 255).

In completing an exposition of material on the first question, it is essential to note again that precisely Soviet reality, our socialist way of life, combat training, the service and everyday life of the Armed Forces personnel have a decisive impact on the process of the soldier's spiritual development. It is no accident that M. V. Frunze called our army an exact copy or replica of the worker-peasant nation. In actuality, the USSR Armed Forces in being engendered by the most advanced social and state system in history embody all its best traits. Their indoctrinational role is determined by the objective development patterns and the specific features of the socialist military organization, by its high historical purpose and by the honorable and responsible tasks confronting our Army and Navy. The Soviet Armed Forces in the full sense of the word are a remarkable school of life, a school of indoctrination for millions of young Soviet people. In pointing to this characteristic feature of the Soviet Armed Forces, Comrade L. I. Brezhnev said that the young men enter the military family without having any schooling in life. But they return from the army already as men who have undergone schooling in restraint and discipline and who have obtained technical, professional knowledge and political training (see "Leninskii kursom," Vol 5, p 535).

2. A School of Ideological Tempering, Military Labor, Discipline and Courage

In beginning to give the material on the second question, it is essential to point out that in the Army and Navy all the necessary conditions have been created for effective training and indoctrination of the men. Our Armed Forces possess remarkable officer personnel. The Soviet officers possess profound ideological and theoretical knowledge, broad erudition and great professionalism. Over 90 percent of them at present are communists and Komsomol members. More than one-half has a higher military and special military education. Officer personnel play the main role in the development of the soldiers, sailors, sergeants, petty officers and warrant officers ["praporshchik" and "michman"] and in ensuring the constant combat readiness of the Armed Forces. "They are the basis, the backbone of the Army and Navy...", pointed out the member of the Politburo of the CPSU Central Committee, the USSR Minister of Defense, Marshal D. F. Ustinov. "The motherland has entrusted them with its most precious possession, our remarkable youth whom the officers are to instruct in military affairs, indoctrinate, and when necessary, lead in combat. The Soviet officers have honorably justified this trust and carry out their military duty with a high sense of responsibility."

Party political work plays an exceptionally important role in constantly increasing the combat readiness of the troops and naval forces and in the communist indoctrination of the Soviet military. This work encompasses all spheres of the personnel's life and activities, it has an active influence on the awareness and feelings of our men, it rallies them around the CPSU and mobilizes them to successfully carry out the tasks of military service.

The Army and Navy party organizations and their combat assistant, the Komsomol, are a strong unifying force of the military collectives. The communists and Komsomol members are a dependable support for the commanders in carrying out the tasks of increasing the combat readiness of the subunits, units and ships, in strengthening

the discipline and organization of the personnel and the communist indoctrination of the men. They unswervingly are in the vanguard of the socialist competition. A predominant majority of them are outstanding men in military and political training and able, intelligent specialists.

The socialist competition plays an active role in the struggle to maintain the combat readiness of the subunits, units and ships and in increasing the efficiency and quality of the training and indoctrinational process. The forms of the competition change but the essence expressed in the words of Comrade L. I. Brezhnev remains the same: "To work better now than yesterday, tomorrow better than today.... And better means an emphasis on quality, on efficiency...." (PRAVDA, 18 December 1977).

The Soviet military firmly follow these instructions. They honorably carried out the high socialist obligations of the past training year, the year of the 26th CPSU Congress and have enthusiastically begun to carry out the tasks of the new training year. This is still another vivid confirmation of their profound ideological conviction, their awareness of their military duty and personal responsibility for the motherland's security. The party's demand not to be pacified by successes and not to be content with the achieved is a law in the life and service of each soldier, sailor, sergeant and petty officer. Today in the subunits, units and ships intense combat training is underway, reserves for further increasing training's effectiveness and quality are constantly being sought out and put into operation and shortcomings are decisively being removed.

In the exercise it is desirable to mention the best men in one's collective and to describe their successes in the socialist competition and how they reached these achievements. In each student it is essential to evoke a desire to equal the pace-setters of training and service, and by one's own labor, tenacity and energy to add to the ranks of outstanding men in military and political training, highly skilled specialists and rated athletes, having particularly pointed out to the soldiers, sailors, sergeants and petty officers that the main motivating force in the deeds and conduct of the Soviet soldier are his ideological conviction and political awareness. These qualities are the determining ones in the spiritual world of our servicemen, comprising a firm basis for fruitful service activities. For this reason the Communist Party has always given and presently is giving primary attention to the ideological conditioning and to the political education of the Army and Navy personnel.

The great Lenin taught that in any war, victory ultimately is determined by the morale of those masses who shed their blood on the battlefield. "A certainty of a war's justice," emphasized Lenin, "and an awareness of the need to sacrifice one's life for the good of one's brothers lift the spirit of the soldiers and force them to endure unheard of hardships.... This awareness of a war's goals and causes by the masses is of enormous significance and ensures victory" (PSS, Vol 41, p 121). The propagandists should point out that Lenin's words were prophetic. They brilliantly withstood the test of time.

Born out of the revolution, the young Red Army, regardless of the acute shortage of weapons and food, head-on defeated the well-trained and armed White Guard and foreign intervention armies during the years of the Civil War. Profound ideological conviction helped the Soviet soldiers win a world historical victory over the Nazi

invaders in the Great Patriotic War. The present defenders of the motherland, like their heroic predecessors, at any time are ready to bodily block the path of the aggressor and deal him a crushing defeat.

The basic content of ideological indoctrination in the Army and Navy is to have the men understand the treasures of Lenin's thoughts, his teachings about the defense of the socialist fatherland and the policy of our Communist Party. This work is being continuously enriched by a deep study and realization in the personnel's service activities of the program provisions and conclusions contained in the materials of the 26th CPSU Congress, in its subsequent decisions and in the works and speeches of Comrade L. I. Brezhnev. Through all forms of ideological influence, the command, political and propaganda personnel of the units and ships endeavor to effectively disclose the remarkable results of our party's revolutionizing activities and the heroic efforts by the Soviet people to build communism, to clearly show the advantages and achievements of a developed socialist society and indoctrinate in the motherland's defenders a readiness and ability to build and defend communism.

In the conscience of the Soviet people and their military, loyalty to the party's cause and to the cause of communism is inseparably linked with their love for their socialist motherland. "Soviet patriotism," said M. I. Kalinin, "inspires and spiritually arms our people; it gives rise to feats by completely simple people who previously were unnoticed; it is powered by the deeds of millions."

Guards Jr Sgt Yu. Udalov wrote about the great inspiring feeling of love for the motherland in the newspaper of the Moscow Military District: "The infinite fields of ripening wheat. The happy groves around Moscow and the dense Bryansk forests. The riches of the Urals and Siberia, the Donets Basin and Baku. The flowering orchards of Moldavia and the vast steppes of the Ukraine. All this is our fatherland, our homeland, our own Soviet land. It has given us, its soldiers, the great right and honorable duty to defend it and to protect the labor of our people....

"So let the love of our Soviet motherland burn as an inextinguishable flame in our hearts, and let not any of us for a minute forget the military oath and his vow to serve the motherland loyally and wholeheartedly."

In indoctrinating the men in wholehearted dedication to the fatherland, the commanders, the political workers, the party and Komsomol organizations thereby develop in them the will and ability to successfully carry out their military duty. The motherland's defenders show their love for the socialist fatherland and their filial loyalty to the homeland by deeds. They steadily improve their combat skills and show truly revolutionary vigilance for the ideological intrigues of our class opponents, maintaining in their hearts a sacred hate for all the enemies of peace, democracy and socialism.

Relations between servicemen in the USSR Armed Forces reflect the unbreakable ideological, moral and political solidarity of a developed socialist society. They are the result of the steady ideological activities carried out by the Communist Party in indoctrinating our people and their soldiers in the ideas of Soviet patriotism and proletarian, socialist internationalism.

Each company and battery, each ship, each team and crew in the USSR Armed Forces is truly a strong military family united by class alliance, by a commonness of goals and tasks and by the same understanding of their duty. The entire system of training and indoctrination in the Army and Navy contributes to this. International indoctrination in the Armed Forces is viewed as one of the main component parts of the men's political training and an important means for shaping the moral and political qualities essential to a defender of the socialist fatherland and for uniting the multinational troop collectives.

At present, the sphere of this has become significantly wider and also includes the forming of a responsible attitude by our servicemen toward the question of the defense of socialism in other nations. Without dividing the tasks of ensuring Soviet security from the defense of the entire socialist commonwealth, the Soviet military honorably serves both in the internal military districts as well as in the troop groups on the forward defensive lines of the Warsaw Pact states. An example of the sacred loyalty of the Soviet military to their international duty is their actions to help the friendly Afghan people in repelling aggression. The carrying out of duties dictated by class solidarity with workers of the other socialist countries and with the peoples waging a liberation antiimperialist struggle is a powerful incentive for raising the spiritual tempering of the Army and Navy personnel.

The revolutionary, labor and military traditions of the Communist Party, the Soviet people and their Armed Forces are one of the most important moral factors having an enormous impact on the Soviet military's indoctrination. Loyalty to the cause of Lenin, to the cause of communism, loyalty to the oath and to military duty, love for one's unit or ship, military comradeship and mass heroism--these and other remarkable traditions having become the moral standard in the conduct of the present generation of soldiers, link them with the feats of those who stormed the Winter Palace, the Perekop rampart and raised the Victory Banner over the Reichstag. The commanders, political bodies, the party and Komsomol organizations skillfully indoctrinate our men in a spirit of loyalty to the finest Army and Navy military traditions and constantly see to it that each soldier, sailor, sergeant and petty officer not only has a good knowledge of the feats of fellow servicemen but also sees the true sources of their heroism and iron steadfastness and by concrete deeds adds to the military glory of the older generations. The feats of the frontline veterans are being continued in feats during field exercises, in sea cruises and training flights. As an illustration of this one might use the most vivid episodes from the recently held Soviet Armed Forces exercises "Zapad-81" [West-81] as well as to the examples taken from the present of one's unit or ship.

In the aim of developing in the men a profound communist conviction and unshakable loyalty to the ideas of Soviet patriotism and proletarian internationalism, the Army and Navy use the entire arsenal of means, forms and methods of party political work, and above all the long-tested ordered system of political studies for the soldiers and sailors, sergeants and petty officers.

In the units and on the ships, all conditions have been created for fruitful political studies by the soldiers and sailors, sergeants and petty officers. The commanders and political bodies, the party and Komsomol organizations employ the very rich arsenal of forms and means in order that each political exercise provides a good ideological charge, help the men more profoundly understand their purpose and tasks and urge them to the heights of military skill.

Tens of thousands of Army and Navy communists and Komsomol activists from the soldiers and sailors, sergeants and petty officers are studying in the evening party schools. Experienced instructors help them thoroughly analyze the timely problems of today and master the skills of conducting party and Komsomol work in the subunits, units and ships.

The diverse forms and methods of mass agitation activities are also aimed at carrying out the tasks of communist indoctrination. The best trained and most experienced propagandists are brought together in the agitation and propaganda collectives under the political bodies and in the agitation-propaganda groups under the party committees and bureaus. In a lively and accessible manner they bring the mobilizing word of the party into the masses of soldiers and indoctrinate them in a spirit of Soviet patriotism and proletarian, socialist internationalism.

The agitators are the most numerous detachment of our Armed Forces' ideological aktiv. Day after day they help the men keep up on current events, in encouraging their fellow servicemen to successfully carry out the tasks confronting them and to effectively work through the combat and political training plans.

In the political, military and moral indoctrination of the personnel, an enormous role is played by the mass information media, that is, the press, radio and television. Each subunit has files of newspapers, magazines, TV sets, radio receivers and wire broadcasting systems. In the subunits, units and ships the soldiers, sailors, sergeants and petty officers regularly watch the TV broadcasts such as "Time," "Today and the World," "International Panorama," "Studio 9," "I Serve the Soviet Union" and others and listen to recent news on the radio. Virtually all soldiers are active subscribers to periodicals and readers in the soldier and sailor libraries. Full political information for the personnel is provided in the Army and Navy.

Military service makes high demands on a soldier and forces him to dedicate all his energy, knowledge and ability to military service. It requires great effort on the part of those who launch missiles, control nuclear submarines and intercept aircraft. The development of the required moral and political qualities is a complex process. It must be said that the men are endeavoring to rationally utilize each cruise, each flight and each field exercise in order to quickly become highly skilled specialists. Their main concern is combat training and a profound mastery of the assigned equipment and weapons. They learn to quickly make forced marches, effectively hit targets, to rout the "enemy" by daring attack and steadfastly endure all the hardships and deprivations of service.

It is not easy for a young man who was yesterday's schoolboy or young worker to become accustomed to difficult army life. But he successfully lives through the crucible of courage, tenacity and endurance. Because nearby are the commanders who are army-strict but also paternally concerned. Because the young soldier can always count on help from his more experienced fellow servicemen.

All the men undergo this schooling in courage in order to be constantly ready to defeat any aggressor. They vigilantly guard the creative labor of their people. The motherland's defenders can say with confidence that they are also involved in the building of a communist society. And they are involved not formally but rather each by his own deeds and by each day lived through.

By its nature, military service requires exceptional decisiveness of action and often the manifestation of courage and heroism as well. Readiness to carry out a feat for the sake of the motherland and for the sake of communism, for a Soviet soldier, is a standard of conduct and a necessary element in his combat description. There are numerous examples of this both in wartime and peacetime. As is known, the party and government give proper due to the heroism and courage of the Soviet people and the Army and Navy personnel. For outstanding feats during the years of the Great Patriotic War, over 11,600 Soviet military were awarded the high title of Hero of the Soviet Union and more than 7 million received orders and medals from the motherland. Our servicemen have also performed numerous feats in peacetime as well. As an example one might mention the bold feat of the paratroopers, Jr Sgt A. Uporov and Guards Pvt L. Manokha, which was performed by them during an airborne landing in the "Zapad-81" Exercises.

...The military transports with the advanced detachments were on the drop course. Upon the command of the stick commander, the paratroopers began to leave the aircraft. The 16th to jump was Guards Pvt Manokha. Guards Jr Sgt Uporov followed him only in a different line.

In a few seconds Guards Pvt Manokha pulled the rip cord. The canopy had not yet opened when Guards Jr Sgt Uporov became entangled in the lines. Both canopies began to collapse and lose their air and the rate of descent increased. At this critical moment the paratroopers did not become confused. While Uporov cut away the tangled parachute lines, Manokha pulled the cord of the emergency shoot. The courageous men landed shortly thereafter. Upon landing, they immediately began to carry out the combat mission. For skillful and decisive actions by the paratroopers in a critical situation, the USSR Minister of Defense, Mar SU D. F. Ustinov, thanked Guards Jr Sgt Uporov and Guards Pvt Manokha and presented valuable presents to them.

It must then be pointed out that in the conduct of each serviceman, wherever he might be, on duty or off, at a battle post or on leave, there is virtually no aspect which is not covered by the regulations. This is dictated by the very essence of our military organization and by the necessity of maintaining high combat readiness of the troops and naval forces. Certainly it is precisely the strong, conscious military discipline which unites the ranks of servicemen and focuses their will on the struggle to successfully carry out the tasks confronting the unit or ship. It has an enormous impact on the spiritual world of the soldiers, sailors, sergeants and petty officers and combined with other factors helps to develop high moral and combat qualities in them. This is why our commanders, political workers, the party and Komsomol organizations give unflagging attention to indoctrinating the men in a spirit of strictly observing the demands of military discipline and to maintaining firm combat order in the subunits, units and ships.

Each year in the spring and autumn, new soldiers are added to the battle formation of the motherland's defenders. They are confronted with difficult Army and Navy life involving intense exercises and training drills, night alerts and attacks at dawn, missile firings and the crossing of cold rivers and long ocean voyages. And everywhere that the soldier's spirit is formed and where his skills are developed, the indispensable guarantee of success and a law of service are efficiency, the ability to obey and act quickly and as a member of a team as the military oath and regulations demand. Having mastered the requirements of military discipline and

having developed in service the habit of always following them, a soldier thus gains new strength and is even more acutely aware of the might of the battle formation of the motherland's defenders.

In completing the material on the second question, it is important to reemphasize that our Army and Navy are constantly being equipped with first-rate equipment and weapons. The Armed Forces possess highly trained personnel and remarkable men. The Soviet military are ardent patriots of their motherland and convinced internationalists. They are marked by high morale and unshakable solidarity with the Communist Party. In understanding well their duty to the people, the soldiers, sailors, sergeants and petty officers constantly increase their ideological tempering, improve military skills and maintain combat readiness on a level ensuring a proper rebuff of any aggressor.

3. Combat Friendship and Comradeship--Essential Moral and Combat Qualities of the Soviet Military Developed in the Process of Service

In beginning to give the material on the third question, it is essential to point out that military activities in their nature are collective ones. While even in peacetime service frequently involves a risk to life, in a war a man constantly acts under the conditions of danger. Here comradely mutual aid and a helping hand are indispensable. For this reason the internal service regulations of the USSR Armed Forces oblige the servicemen to value military comradeship, to help comrades in word and deed, to restrain them from unworthy actions and in sparing not their lives, to help them out of danger.

Service in the army is a good school for military fraternity. The joint surmounting of hardships and difficulties, the constant mortal danger and the bitterness of losses and the joy of victories unite the men in a war and help them to honorably emerge from any hardships. It is impossible to read without pride for our military the place in the book by Comrade L. I. Brezhnev "Malaya Zemlya" where he writes about meeting a soldier who was on his way back from the hospital and wanted to get back immediately to his unit, although at that moment it was in the very thick of combat. "Possibly this was a special company which drew people there?" asked Comrade L. I. Brezhnev and himself answered: "No. From one end to the other of the entire Soviet-German Front, in all the medical battalions of the USSR Armed Forces we heard: I want to get back to my unit! One's company, regiment or division was considered special, the best and in the full sense of the word, one's own. It turned out that all our army consisted of 'special' units."

The remarkable traditions of friendship and military comradeship of the grandfathers and fathers are sacredly preserved and being added to by their grandsons and sons. Often one encounters information describing vivid instances of peacetime military comradeship such as the volunteer donating of blood in order to save a fellow serviceman, mutual help in a landing or other difficult situations which sometimes arise in service. In the exercise it is desirable to give similar examples which the propagandist can find in periodicals or draw them from the present life of one's unit or ship. Here it is essential to explain to the men that by military comradeship one must understand a spiritual link between the men which is developed in the process of military service on a basis of a unity of their interests, goals and tasks which conform to the cause of securely defending the socialist fatherland and continuously raising the combat readiness of the troops and naval forces.

True comradeship is inconceivable without principledness in relations. This means intolerance of shortcomings in one another. For this reason to close one's eyes to negative traits in the conduct of a fellow serviceman or in his attitude toward service duties would mean to do him a bad turn and harm the common cause.

The essence of military comradeship is in the mutual aid and support of the men. It is no accident that the first Red Armyman's service booklet approved by V. I. Lenin stated: "Perish yourself but help a comrade and a comrade will lend a hand in misfortune!" The motherland's defenders have always followed and do follow this motto. They realize that success in the cause of further raising combat readiness in their subunit, unit or ship depends upon each man. If a dependable comrade is nearby, any undertaking is within reach. He is your support in training and in a combat situation.

In the establishing of comradely relations in a collective, a particularly great role is played by the sergeants and petty officers and the more experienced men. An absolute majority of them are true mentors and teachers of the young soldiers and sailors. They spare neither time nor effort to pass on their knowledge and experience and to teach the men to efficiently carry out the tasks of modern combat. This was described in detail, in particular, in the article "Be an Example in Carrying Out Military Duty and Help Comrades in Mastering Military Skills" published in the present issue of KOMMUNIST VOORUZHENNYKH SIL. It is recommended that the article be used in preparing for the current exercise.

Then it is essential to emphasize that collectivism, a constant feeling of support and a readiness for a feat to save combat comrades can ensure victory over the enemy. This readiness must be developed now, at the firing ranges, in tactical exercises, during long sea voyages and in flights.

In our times the task of strengthening combat cooperation between the men of the fraternal armies has assumed particular significance. This is one of the sources for the might of the armed forces in the fraternal socialist nations and a dependable guarantee that any intrigues by the imperialists and their supporters against our community will be properly rebuffed.

In completing the giving of material on the subject, it is important to reemphasize that service in the Army and Navy is true schooling in life for the young Soviet people. The person who has undergone army training is not only a good soldier. As a rule, he is also an active builder of communism.

For the soldiers, sailors, sergeants and petty officers there is no higher honor than justifying the confidence of the party and the people and being constantly ready to rebuff any aggressor. Army and Navy service teaches this.

During the hours of independent study, it is recommended that the students study the works of V. I. Lenin, "On Professional Grounds" (PSS, vol 35, pp 408-409) and "The Tasks of the Youth Unions" (PSS, vol 41, pp 311-318; the USSR Constitution (Basic Law) (Articles 31, 32, 62 and 63); the Report of Comrade L. I. Brezhnev "Report of the CPSU Central Committee to the 26th CPSU Congress and the next tasks of the party in the area of domestic and foreign policy" ("Materialy XXVI s"yezda KPSS," p 66).

In the seminar (discussion) it is desirable to bring up the following questions:

1. How V. I. Lenin defined the historic purpose of the Soviet Armed Forces.
2. Why service in the Army and Navy is true schooling in life for each soldier, sailor, sergeant and petty officer.
3. What are our party's demands on further strengthening the indoctrinational role of the Soviet Armed Forces?
4. What is the basis of the moral, political and military qualities of the Soviet military?
5. What tasks confront the unit or ship personnel in increasing military skill and strengthening discipline, organization and military comradeship?

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3. V. I. Lenin, "The Tasks of the Youth Unions," PSS, Vol 41, pp 298-318.
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5. L. I. Brezhnev, "Report of the CPSU Central Committee to the 26th CPSU Congress and the Next Tasks of the Party in the Area of Domestic and Foreign Policy," "Materialy XXVI s'yezda KPSS," pp 66, 75-79.
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Responsibilities of the Serviceman

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) pp 73-77

[Article by Lt Col K. Pashikin: "Be an Example in Carrying Out Military Duty and Help Comrades in Mastering Military Skills"]

[Text] It is recommended that this subject be studied with the soldiers, sailors, sergeants and petty officers during the fourth instruction period after the subject "The 26th CPSU Congress on the Necessity of High Vigilance and Constant Combat Readiness of the Soviet Armed Forces the Tasks of the Personnel in the New Training Year." In the course of the exercises the propagandists must help the students more profoundly understand the honorable nature of the constitutional duty to securely

defend the socialist fatherland and to gain a feeling of personal responsibility for maintaining constant high combat readiness of one's subunit, unit or ship and for strengthening friendship and solidarity in the military collectives for the sake of further raising the personnel's organization and discipline.

Six hours from spare time should be assigned for the exercise. Of this time 2 hours must be used for a lecture (narration), 2 for independent study and 2 for a seminar (discussion).

In the lecture (narration) it is advisable to focus the readers' attention on the following questions: 1. Loyalty to military duty--a remarkable tradition among the defenders of the socialist motherland. 2. To help comrades in word and deed.

It is advisable to start the lecture (narration) with a short introduction in which one points out that under the conditions of the sharp exacerbation in the present situation in the world caused by imperialism and its supporters, the Communist Party is taking every measure to further strengthen national defense and is placing exceptionally high demands on the combat readiness of the troops and naval forces. The international situation, as was emphasized at the 26th CPSU Congress, obliges us to do this (see "Materialy XXVI s'yezda KPSS," p 66). Hence the duty of the Soviet military to justify the confidence expressed at the party congress by the CPSU Central Committee that the motherland's defenders in the future will securely guard the peaceful, creative labor of the Soviet people.

The successful carrying out of this task depends largely upon how conscientiously each soldier and sailor, sergeant and petty officer relates to service and values the great trust put in him. Here it is advisable to recall to the students the provision in the Internal Service Regulations of the USSR Armed Forces that a serviceman bears personal responsibility for defending his motherland. He must protect the interests of the Soviet state, he must help to strengthen its might and authority, he must sacredly and inviolably observe the USSR Constitution, the Soviet laws and the military oath and he must unfailingly carry out his military duty to the motherland. Our military are ultimately loyal to this duty. By their wholehearted service and loyalty to their socialist fatherland and to the cause of the Communist Party, they have won the profound respect and gratitude of all the people.

1. Loyalty to Military Duty--A Remarkable Tradition of the Socialist Motherland's Defenders

In beginning to give the material on the first question, the propagandist should remind the students of the contents of Articles 62 and 63 of the USSR Constitution where it is stated that the defense of the socialist fatherland is the sacred duty of each Soviet citizen while military service in the ranks of the Armed Forces is an honorable duty of the Soviet citizens. Here it is important to emphasize that the honorable nature of service in the Soviet Army and Navy is explained by their historic purpose. They have been set up, as our Basic Law states, for the purposes of defending socialist victories, the peaceful labor of the Soviet people, the sovereignty and territorial integrity of our state. Universal military service has also been established in the nation for the same purposes. The duty of the USSR Armed Forces to the people is to securely defend the socialist fatherland and to be in constant combat readiness guaranteeing the immediate rebuff of any aggressor.

It must be pointed out that loyalty to military duty is one of the remarkable military traditions of the Soviet soldiers. Each Soviet citizen is impelled to exemplary service of the motherland out of his ideological convictions and the moral and political qualities engendered by the socialist way of life and instilled by the Communist Party.

To be totally loyal to the duty of the motherland's armed defender is a service obligation and at the same time a moral law and standard of conduct for the Soviet military. Convincing proof of this is the entire service record of our Army and Navy. In the exercises it is desirable to give examples showing the mass heroism and courage of our soldiers and commanders and their wholehearted dedication to their military duty. The propagandist can find these in the works of literature and military memoirs devoted to the events of the Civil and Great Patriotic wars as well as in the military history of one's district (fleet), formation or unit (ship).

What force has caused our men to block the fire-breathing embrasures of enemy pill-boxes with their bodies, to make mid-air ramblings, to throw themselves under the tracks of enemy tanks with grenades tied to themselves or to draw fire upon themselves? The bourgeois falsifiers of history have endeavored to explain this by the supposedly congenital fanaticism of the Soviet people. However, they are far from the truth. They do not realize that the courage and self-sacrifice of the men in the USSR Armed Forces are based on their ardent love for the Soviet fatherland and loyalty to the military oath and to their duty to the motherland. Comrade L. I. Brezhnev described this well in his book "Malaya Zemlya." "History knows many heroic feats by individuals," wrote L. I. Brezhnev, "but only in our great nation and only led by our great party, the Soviet people have shown that they are capable of mass heroism."

It is essential to then point out that the soldiers of the 1980's are holding sacred and adding to the military glory of the older generation of the motherland's armed defenders and to their heroic traditions. They are also unswervingly loyal to the party's cause and are always completely ready to carry out their military duty and to rebuff any aggressor.

What does it mean today for a soldier, sailor, sergeant or petty officer to be loyal to his military duty and to perform it in an exemplary manner? First of all this means that he must strictly follow Lenin's legacy on the defense of the socialist fatherland, he must unswervingly observe the requirements of the military oath and regulations, he must always be vigilant and be in constant combat readiness.

In pointing to the necessity of thoroughly mastering military affairs, V. I. Lenin advised: "We should have one slogan--to study military affairs effectively..." (PSS, Vol 36, p 26). In our times this means that each soldier, sailor, sergeant and petty officer must master the military equipment and weapons assigned to him, use them skillfully in combat, know the tactical procedures and methods for carrying out combat operations, the enemy's strong and weak points, and constantly prepare to combat a perfidious and technically well-equipped enemy. This is precisely what the Soviet military is doing. They are doing everything necessary so that their combat readiness and capability guarantee national security and be sufficient for defeating any aggressor.

Modern weapons place increased demands upon the training of each specialist, his moral, psychological and military qualities, psychological strength and physical endurance. It is not easy to attain the heights of military skill and to become a true master of the powerful military equipment. For this there must be intense daily labor in the classrooms, at the testing grounds, firing ranges, tank driving grounds and in the course of tactical exercises, missile launches, flights and sea cruises. The tenacious desire of a soldier, sailor, sergeant or petty officer to perfectly master the assigned weapons and military equipment expresses his loyalty to Lenin's legacy and his duty.

A clear manifestation of the patriotic desire of the Soviet military to honorably and conscientiously serve the motherland is their involvement in the socialist competition. The struggle for an outstanding result of each hour of exercises and each day of combat training and for the ability to hit the targets at maximum ranges with the first round, launch or run and to operate at night using daytime standards presently fills the workdays of the soldiers, sailors, sergeants and petty officers.

They are well aware that the exemplary fulfillment of military duty is inconceivable without strict discipline and efficiency. It is always essential in everything to act in accord with the requirements of the oath and regulations, to unswervingly carry out the orders and instructions of commanders and to be intolerant of the slightest deviations from the service rules. And the person who is profoundly aware of his duty to defend the motherland is, in the full sense of this word, a model of high discipline and efficiency and in deed acts as their active proponent and makes a worthy contribution to further uniting the troop collectives.

In the exercise it is particularly important to emphasize that the main indicator of a man's attitude toward his duty and his understanding of the goals and tasks of service is his combat readiness. Combat readiness is the culmination of the personnel's military skills in peacetime and the key to victory in war. The constantly increasing arms race in the capitalist nations and the constant strengthening of their aggressive preparations aimed against the USSR and the other socialist states demand that the combat readiness of the Army and Navy always be on the properly high level. This is the primary task of the Soviet military. They are profoundly aware of the importance of its fulfillment, the need to strengthen vigilance and combat skill and improve discipline and order.

In concluding the material of the first question, it is essential to point out that the concept "military duty" is closely tied to the concept of "responsibility." To be aware of one's personal responsibility for securely defending the motherland means to profoundly understand the inadmissability of any deviations whatsoever from the observance of the demands of military duty. It would be wise if, in conclusion, the propagandist mentioned the names of the best men in the subunit, unit or ship, told about the achievements by the pacesetters of the socialist competition in training and service and point out that their successes are based on a high awareness of military duty and a feeling of personal responsibility for securely defending the socialist motherland.

2. To Help Comrades in Word and Deed

In beginning to give the material of the second question, it is essential to point out that the men of the Soviet Armed Forces, like all our people, are a united family and show trust and respect for each other. Their relationships are based on equality

and true military fraternity. It is essential to emphasize that the tradition of military comradeship is reinforced in the military oath and the military regulations. Thus, the Internal Service Regulations of the USSR Armed Forces oblige the serviceman "to value military comradeship and to help comrades in word and deed...." To follow this wise admonishment is a direct service and moral duty for each soldier, sailor, sergeant and petty officer.

In the course of the lecture (narration) it is essential to point out that a vivid manifestation of troop comradeship is aid in the mastering of military skills from the earlier inducted men to those later inducted into the Army and Navy. This is particularly important at present when the new recruits arrive in the subunit, unit or ship. It is a matter of honor for each experienced soldier to help his young comrade quickly shape up, to fully learn the combat specialty and to caution him against possible errors.

Precisely the support and involvement of the more experienced soldiers, sailors, sergeants and petty officers in the concerns of those who have recently arrived in the collective largely determine how quickly the new men of the subunit, unit or ship will shape up and how successfully they will act as part of the squad, crew, team or facility. In being constantly next to his comrade, an experienced soldier is able to immediately spot a failure in training or an exercise, he can promptly suggest how to eliminate one or another shortcoming and point out what must be done for this. In free time he always seeks out an opportunity to tactfully interest the new man, he endeavors to discover whether he has understood the commander's explanation, where he is experiencing difficulty and what help is needed. If need be, then he must again clearly explain the material, in practice show how one or another procedure is carried out and train the comrade on the equipment or a trainer.

Special attention must be given to the young soldiers in the course of exercises and field firings and in carrying out other important assignments when a complete dedication of all their spiritual and physical forces is required. To some soldiers, particularly those who are involved in such exercises for the first time, it may seem that the work is beyond them. They lose confidence and may shy from difficulties. Here the role of the senior commander is particularly a great one. In a difficult moment he is always the first to extend a helping hand, to support and encourage a fellow serviceman, by his personal example he leads him and, if the situation requires, helps him out of misfortune.

In each subunit, unit and ship there are such men. It is desirable to describe them in the exercise, and to show who specifically they have helped or are helping in combat training and service, what results their aid has brought and how this tells on the further strengthening of order and organization, increased combat skills and the solidarity and combat capability of the personnel.

It must not be forgotten that serviceman relations are governed by the military regulations, the requirements of which conform to the standards of communist morality. For this reason it is unacceptable when individual more experienced soldiers and sailors are disdainful of the new men and endeavor to emphasize their "superiority" over them. Such instances must not be overlooked. They run contrary to the existing traditions of friendship and military comradeship and to the requirements of the oath, the military regulations and military duty. Any instance of incorrect relationships merits a severe and principled evaluation by the entire military collective.

The propagandist should point out that under present conditions the importance of military friendship and mutual aid has increased immeasurably. A modern army and navy are equipped with complex equipment and weapons. This places increased demands on the training of the personnel, on their moral, political and military qualities and on the solidarity of the military collectives.

Many types of weapons are collective ones and in servicing them the men cannot get by without the ability to act together with the highest level of cooperation. Here the mastery of related specialties by the soldiers, sailors, sergeants and petty officers assumes great significance as does the achieving of complete interchangeability in a squad, team, crew or facility. The collective nature of military service develops in the men a feeling of support, it accustoms them to act rhythmically and in precise interaction with fellow servicemen and contributes to the effective working through of the tasks.

To help a comrade in word and deed means to be intolerant of his shortcomings and to speak to him directly and frankly about mistakes and omissions in service. True friendship particularly does not tolerate mutual cover-up or all-forgiveness. A true comrade never acts against his conscience. He always cautions a fellow serviceman against a possible error. Military duty places precisely such demands on army and navy friendship and comradeship.

In conducting the exercise with sergeant personnel, the propagandist must particularly emphasize the role of the sergeants and petty officers in uniting the military collectives and in the training and indoctrination of subordinates.

The propagandist should point out that the sergeants and petty officers are the immediate and direct superiors and indoctrinators of the soldiers and sailors. The junior commanders of the Soviet Armed Forces comprise the basis on which all discipline and the combat solidarity of their subordinates are based.

In order to successfully carry out his duties, each sergeant and petty officer should himself first of all be exemplary in the performing of military duty, a highly skilled specialist with perfect mastery of the weapons. It is important that he can personally demonstrate to his subordinates how in each specific case the equipment should be handled, how to employ it in a combat situation, operate it skillfully and quickly detect and eliminate arising problems. A junior commander teaches the soldiers and sailors chiefly through his own example. Do as I is the basic principle which he follows daily.

Under the conditions of modern combat, as is known, the importance of small subunits such as squads, teams and crews, has risen significantly. Depending upon the developing situation, they must often operate away from the main forces and carry out combat missions independently. Here success will largely depend upon how smoothly all the men of the squad, team or crew have learned to work and how effectively the sergeant or petty officer is able to utilize the combat capabilities of the assigned weapons and equipment and to skillfully lead the subordinates.

In a combat situation, a mistake even by one man involved with collective weapons is absolutely inadmissible as it can lead to losses and the aborting of the combat mission. This is why it is important for the sergeants and petty officers to constantly seek high skill and clarity in the combat work of subordinates. They must train

and indoctrinate the soldiers and sailors in such a way that each man be interested in the success of his comrade in arms and that unfailing teamwork of the squads, teams and crews be achieved.

Experience shows that it is essential from the very outset to arouse in the soldiers and sailors an interest in studying equipment and to instill in them a love for it and a desire to master it perfectly. Here it is essential to see to it that no young soldier doubt his abilities due to the complexity of this equipment. It is a good thing if the sergeant or petty officer actually demonstrates that the most complex equipment is within the grasp of an able and experienced specialist. He should provide an opportunity for the young soldiers and sailors to become more closely familiar with the unit, assembly or piece which they are to master and interest them in it. It is also essential for him to so organize the training process that there are no laggards in his squad, team or crew and that the soldiers and sailors learn to act as a single whole, in a single spirit and in a desire to ensure the irreplaceable carrying out of the most difficult tasks. Precisely this comprises the moral duty and most important service obligation of each junior commander.

In completing the material on the subject, it is essential to emphasize that the Soviet military are profoundly aware of what enormous responsibility has been put on them by the party, the government and the people for the motherland's security. They are well aware of the complexity of the modern international situation. And they are doing everything so that under the conditions of the increased military threat from imperialism they are in constant combat readiness. "In carrying out the will of our people, in warmly approving and unanimously affirming the party's domestic and foreign policy and the activities of its Central Committee, the Central Committee Politburo headed by Comrade L. I. Brezhnev," emphasized the USSR Minister of Defense, Mar SU D. F. Ustinov, in a speech in the field review of the troops participating in the "Zapad-81" Exercises, "the Soviet military in close alliance with the men from the fraternal Warsaw Pact states, together with the armies of the other socialist states, vigilantly guard the victories of socialism and defend the interests of the socialist commonwealth."

During the hours of independent study, it is recommended that the students study the work of V. I. Lenin "The Fall of Port Arthur" (PSS, Vol 9, pp 155-156) the USSR Constitution (Basic Law) (Articles 31, 32, 62 and 63); the report of Comrade L. I. Brezhnev "Report of the CPSU Central Committee to the 26th CPSU Congress and the Next Tasks of the Party in the Area of Domestic and Foreign Policy" ("Materialy XXVI s"yezda KPSS," pp 26-31, 66); the article by the member of the Politburo of the CPSU Central Committee, the USSR Minister of Defense, Mar SU D. F. Ustinov "Against the Arms Race and the Threat of War" (PRAVDA, 25 July 1981); Chapter 13 of the textbook for political exercises "Na strazhe Rodiny" [On Guard for the Motherland] (Voenizdat, 1978); Chapter 4 of the textbook for political exercises for sergeants and petty officers, "Serzhenty i starshiny Vooruzhennykh Sil SSSR" [Sergeants and Petty Officers of the USSR Armed Forces] (Voenizdat, 1980).

In the course of the seminar (discussion), the students should be asked the following questions: 1. What is military duty and on what is it based? 2. What are our party's demands on the training of the Armed Forces personnel? 3. What does it mean for a soldier, sailor, sergeant or petty officer to fully carry out his military duty to the motherland? 4. What are the tasks of the more experienced men to help their comrades in service? 5. What is the role played by the sergeants and petty

officers in unifying the military collectives and in training and indoctrinating subordinates?

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5. L. I. Brezhnev, "Report of the CPSU Central Committee to the 26th CPSU Congress and the Next Tasks of the Party in the Area of Domestic and Foreign Policy," "Materialy XXVI s"yezda KPSS," Sections I and III.
6. "Materials of the 5th Session of the USSR Supreme Soviet, 10th Convocation," PRAVDA, 24 Jun 1981.
7. D. F. Ustinov, "Against the Arms Race and the Threat of War," PRAVDA, 25 July 1981.
8. D. F. Ustinov, "Speech at the Field Review of the Troops Participating in the 'Zapad-81' Exercises," PRAVDA, 13 September 1981.

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Information on Required Subjects

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) p 77

[Unattributed article: "To the Attention of Political Exercise Group Leaders"]

[Text] According to the plans of the Main Political Directorate of the Soviet Army and Navy, the second subject of each semester in the 1982 and 1983 training years is to be studied in the soldier and sailor groups in the periods of instruction using their spare time.

The soldiers and sailors from the first period of instruction study the subject "The Soviet Armed Forces--A School of Ideological Tempering, Military Skills, High Discipline, Military Friendship and Comradeship." A study plan for this subject is found in this issue of the journal KOMMUNIST VOORUZHENNYKH SIL.

The soldiers and sailors of the second period of instruction study the subject "Soviet Laws on the Responsibility of Servicemen for Violating Service Procedures in the USSR Armed Forces." In preparing for the exercise on this subject it is recommended that the following articles be used: "The Military Oath--A Law in the Life of Each Man" (KOMMUNIST VOORUZHENNYKH SIL, No 7, 1981), "For the Exemplary Performance of the Tasks of Alert Duty, Long Sea Voyages and the Standing of Patrol and

Guard Duty" (KOMMUNIST VOORUZHENNYKH SIL, No 10, 1981), "The Commander--The Observer of Discipline and Law and Order" (KOMMUNIST VOORUZHENNYKH SIL, No 13, 1981), "The Defense of the Socialist Fatherland--A Sacred Duty" (KOMMUNIST VOORUZHENNYKH SIL, No 16, 1981), "The Military Oath--The Serviceman's Vow of Loyalty to the Socialist Motherland" (KOMMUNIST VOORUZHENNYKH SIL, No 17, 1981), "The Regulations of the USSR Armed Forces--A Law in the Life of the Serviceman" (KOMMUNIST VOORUZHENNYKH SIL, No 18, 1981), "Military Service Procedures. The USSR Law 'On Universal Military Service'" (KOMMUNIST VOORUZHENNYKH SIL, No 19, 1981) and "Discipline and Efficiency--Important Moral and Military Qualities of the Soviet Military" (KOMMUNIST VOORUZHENNYKH SIL, No 19, 1981).

The soldiers and sailors from the third period of instruction study the subject "Proper Relations Among Servicemen--An Important Condition for the Solidarity and Combat Teamwork of the Military Collective." In preparing for the exercise on this subject, it is recommended that the following articles be used: "The Great Force of Friendship of the Soviet Peoples" (KOMMUNIST VOORUZHENNYKH SIL, No 3, 1981); "The Military Oath--The Serviceman's Vow of Loyalty to the Socialist Motherland" (KOMMUNIST VOORUZHENNYKH SIL, No 17, 1981); "The Regulations of the USSR Armed Forces--A Law in the Life of the Serviceman" (KOMMUNIST VOORUZHENNYKH SIL, No 18, 1981); "Discipline and Efficiency--Important Moral and Military Qualities of the Soviet Military" (KOMMUNIST VOORUZHENNYKH SIL, No 19, 1981); "A School of Ideological Conditioning and Military Skill" (KOMMUNIST VOORUZHENNYKH SIL, No 21, 1981); "To Be An Example in Carrying Out Military Duty and to Help Comrades in Mastering Military Skills" (KOMMUNIST VOORUZHENNYKH SIL, No 21, 1981); "Do Not Retreat from a Commander's Duty" (KRASNAYA ZVEZDA, 24 September 1981).

The soldiers and sailors in the fourth period of instruction are to study the subject "Be An Example in Carrying Out Military Duty and Help Comrades Master Military Skills." A course outline for this subject is found in the present issue of the journal KOMMUNIST VOORUZHENNYKH SIL. In addition, at the end of each semester the soldiers and sailors in the fourth period of instruction are to study the subject "Always Be Ready to Defend the Peaceful, Creative Labor of the Soviet People, the Cause of Peace and Socialism." A course outline for the given subject will be published in issue No 5 of KOMMUNIST VOORUZHENNYKH SIL, 1982.

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NAVAL FORCES

PACIFIC FLEET: IMPORTANCE OF EFFECTIVE COMPETITION STRESSED

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) pp 40-47

[Article by Rear Adm N. D'yakovskiy, member of the military council and chief of the Political Directorate of the Red Banner Pacific Fleet: "The Competition is Strong in the Initiative of the Men"]

[Text] During these days, when the entire nation is preparing to celebrate the 64th anniversary of the Great October Socialist Revolution, an atmosphere of a high political upsurge and professionalism reigns on the ships and in the units and formations of the fleet. As the decisions of the 26th CPSU Congress require, there is an active search underway for reserves to increase the efficiency and quality of all our work. The struggle is being continued to improve the training and indoctrinational process, to better sea, air and field skills and to further strengthen military discipline, organization and proper order. The extensive scope of the socialist competition contributes much to this. It has had a profound impact not only on the course of combat and political training but also on sociopolitical life and the moral climate in the military collectives. It has developed the initiative of the seamen, it has impelled them to grow in ideological-political and military-technical regards and has shaped in them a sense of responsibility for the honor and cause of their collective. It has forged models of an understanding of social duty, heroism and self-sacrifice in labor.

"The socialist competition is the creativity of the masses," commented the Accountability Report of the CPSU Central Committee to the 26th Party Congress. "In its very essence it is based upon the high awareness and initiative of people. Precisely this initiative helps to disclose and activate the production reserves and to increase the effectiveness and quality of work." Having accepted these instructions as a guide for action, the commanders, political bodies, the party and Komsomol organizations of the ships, units and formations are endeavoring in every possible way to support and develop the creative initiative of the competition's participants and are focusing it on the high-quality fulfillment of the training plans and programs and the requirements of the party and USSR minister of defense on the combat readiness of the motherland's armed defenders.

The main and determining thing in the socialist competition, as in all the activities of the personnel, is now a thorough study and practical realization of the decisions of the 26th CPSU Congress and a struggle to maintain the fleet's combat

readiness on a level guaranteeing a crushing rebuff to any aggressor. The Pacific Fleet sailors remember and are constantly carrying out the order of the General Secretary of the CPSU Central Committee, the Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev, given by him during a visit to our fleet on the need to increase military skill, combat abilities and political knowledge. This can be seen from the numerous patriotic initiatives which have been born from the keen mind of the men and which have become widespread in contributing to the profound mastery of the weapons and equipment, to improving the quality of tactical gunnery training and to reducing the time required to bring the ships, subunits and units to a state of combat readiness. Among them are such valuable initiatives as a competition to hit the targets at maximum ranges on the first round, launch or run, to receive a 2d class rating in the first year of service and a 1st class in the second and for the ability to successfully carry out tasks at night using daytime standards.

In the fleet there are many ships and units where, by the joint efforts of the commanders, the political workers, the party and Komsomol organizations, a situation has been created where the men show a creative attitude for their job and a common desire to achieve high levels of combat skill and for the complete and unconditional fulfillment of the socialist obligations assumed in the competition under the motto "For High Combat Readiness and Firm Military Order!" When one analyzes the state of affairs in the advanced collectives, each time one concludes that the sources of their successes lie in organizing the competition in strict accord with Leninist principles and the party's present demands and in the ability of the communist leaders to rely on the initiative of the men and to channel it properly.

This applies fully, for example, to the crew of the large ASW vessel "Tashkent" which during the current training year initiated a competition among the personnel of the fleet's surface vessels. The sailors promised to bring the ship up among the outstanding and are working confidently toward the designated goal. Having completed the course exercises during the winter training season with high grades, with equal success they confirmed their combat skills in the summer ocean cruises. All the missile and artillery firings, and the ASW exercises were carried out with a grade of excellent. Some 75 percent of the ship's personnel is specialists 1st and 2d class and masters of military skill and 60 percent are outstanding men in military and political training. The crew maintains firm proper order and strong military discipline. There is a healthy moral atmosphere here. The sailors live and serve following the principle of the moral code of a builder of communism: "Collectivism and comradely mutual aid: one for all and all for one."

It is rightly said that a great goal gives rise to great energy and unifies a collective. But certainly this does not come about automatically. The crew of the "Tashkent" dared to act as the initiator on a fleet scale due to the able organizational and indoctrinational work of the ship's commander, Capt 2d Rank Ye. Zdesenko, his deputy for political affairs, Capt-Lt Yu. Yakovlev and the party and Komsomol aktiv. In utilizing the entire arsenal of forms and methods for an ideological and political influence on the awareness of the men, they were able to light in each sailor's heart a desire to mark the year of the 26th CPSU Congress by worthy military deeds.

In organizing the competition, the sailors, petty officers, warrant officers ["nich-man"] and officers were provided an opportunity to independently set the goals for improving political, moral and military qualities and great scope was provided for their personal initiative. At the same time the commanders and political workers explained to the men that only completely sound obligations were acceptable. Those who set either excessively great or too easy goals were tactfully corrected.

Thus, in reviewing the individual obligations of the sailors, the ship's commander drew attention to the fact that some of them had decided to only confirm a class rating although it could have been raised. But a competition without progress loses any meaning. Complacency with the achieved level does not provide an impetus, as is known, for hard work. For the combat readiness of the crew it was important to have as many possible high-class specialists. The commander shared his ideas with the political worker and the party bureau secretary. In turn, they informed him that in the obligations of certain sailors points had not been specifically defined concerning their political self-education, participation in rationalization work and the saving of materiel or in observing the standards of communist morality and comradely mutual aid.

In the conversation the reason became apparent for such a situation. Individual officers had a formal attitude toward the organizing of the competition. In particular, Capt 3d Rank V. Shurukhin and Sr Lt V. Shcherbakov approached it following the easiest and fundamentally erroneous way. Having printed up sample points of the socialist obligations, they issued them to subordinates while the latter, without being particularly concerned with this, copied verbatim the texts offered them. Duplicate obligations resulted which did not consider the individual abilities and capabilities of each man. The main thing in the competition was completely excluded, that is, the initiative and creativity of its participants.

Capt 2d Rank Zdesenko, at a meeting of the department commanders, thoroughly reviewed these oversights and explained that initiative has nothing in common with drifting, he showed the harm of formalism in a vital matter, he gave advice and instructions to eliminate the shortcomings. Later this was discussed at a party meeting. In carrying out its decision, the communists did everything so that the sailors would assume optimum and at the same time realistic obligations. From the totaled individual obligations of the men they then set the goals for the squads, teams, departments and the crew as a whole.

On the ship organizational and indoctrinational work is carried out just as aptly for maintaining and developing the initiative of the men in the course of carrying out their adopted obligations. The actual achieving of the goals set in the competition is the main and most complicated aspect of the matter. Here the men particularly need both daily supervision, a kind word and assistance. In realizing this, the ship's command relies on the active help of the party and Komsomol organizations, it creates conditions for fruitful military service and is concerned that the word of each man is reinforced by deeds and does not remain a good intention. On the ship there is a well-organized system for summing up the results of the competition, there is publicity and comparison of the results achieved by the sailors while all that is valuable is supported and advanced experience is introduced.

Month after month, the torpedo department emerged as the victor in the competition. It was rightly declared to be outstanding and then the best on the ship. The success achieved by the men was largely due to their commander, the CPSU member, Sr Lt V. Vysotskiy. Having taken command of a lagging subunit, the officer with initiative tenacity and exactingness for himself and his subordinates, in a comparatively short period of time brought it up among the leaders.

The ship's party bureau members carefully analyzed in what manner the officer was able to create a creative spirit of competitiveness and an atmosphere of mutual aid and exactingness in the department and to instill in the men a high feeling of responsibility for the collective's honor. This is what they discovered. Sr Lt Vysotskiy was properly concerned with the organization of the competition, he led it daily and encouraged the initiative of the men. Having approved the initiative of the subunit's Komsomol members who proposed the motto "There Should Be No Laggards Next to an Outstanding Man," the commander did everything so that the motto did not remain simply an appeal. At a Komsomol meeting it was clearly determined which of the outstanding men would take whom to bring up to his level. In each summing up of the competition's results, the officer analyzed whether the sailors were keeping their word. Along with the party group organizer, WO A. Stepanov and the Komsomol organization secretary, PO 2d Class V. Shumakov, the department commander carries out extensive individual work and for this reason always perfectly knows the state of affairs in the collective. For him the main method of indoctrinating his subordinates is persuasion and, as a rule, he achieves a conscientious attitude among the sailors toward the carrying out of their obligations. All the sailors, petty officers, warrant officers and officers of the combat unit who planned to become outstanding men, specialists 1st and 2d class and to excellently carry out the anti-sub firings did this in fact. The party bureau has generalized the experience of Sr Lt Vysotskiy and made it available to all officers.

The party activists on the leading ship are working constantly so that all the communists have a responsible and creative attitude toward the competition and realize that any initiative by the sailors will be alive and effective only with their active support. The establishing of such an attitude was aided by the party meeting which discussed the question of increasing the party organizations' militancy and the communists' activity in the struggle to carry out the crew's obligations. A role was also played by the hearing of reports by the communists at party bureau sessions. In particular, there was a thorough analysis of the activities of the CPSU member, Capt 3d Rank V. Shurukhin, in having the officers set an example in the competition. Capt 3d Rank V. Kozlov had excelled in his work in training masters of military skills and class specialists. The talk at the bureau encouraged the ship's propagandist Sr Lt A. Pirogov, to search out effective ways of the competition's influence on the quality of the personnel's political studies.

The ship's command and party organization assign an important place to ideological work in developing the sailors' initiative and in increasing the competition's indoctrinational role. The communist leaders give lectures and reports and participate in other agitation and propaganda measures. They explain to the men the party's policy, its demands upon the combat readiness of the Armed Forces, the competition's goals and the Leninist principles of its organization. They also acquaint them with the deeds of the crew of the large ASW vessel "Petropavlovsk" with which the crew of the "Tashkent" is competing.

All of this helped to create a true competition between the subunits for an outstanding result of each training day and to embody good initiatives in deeds. For example, particularly popular among the sailors was the competition for the right to be called the successors of the best war year specialists on the lead destroyer "Tashkent" the name of which had been inherited by the large ASW vessel. Each month the leaders of this patriotic movement are determined and the successors of the frontline heroes are announced for the results of the training period. They are given special certificates as well as souvenirs which have been sent by the surviving participants of the last heroic cruise of the destroyer "Tashkent." Quite naturally, this competition helps to train high-class specialists and to instill in the men a love for the ship, a pride for its successes and a desire to add to the glorious combat traditions.

In one of our formations there is much that is instructive in the organizing of the competition. Here the commander, the political department, the staff, the party and Komsomol organizations are closely and directly concerned with developing the sailors' initiative. Having last year sponsored the initiative "Twenty-Six Shock Weeks for the 26th Party Congress," the sailors truly worked in a shock manner, they carried out all the combat training missions on a high level and won the title of leading formation in the fleet. But the value of their initiative is measured not only by the high results in improving combat skills. Feelings of filial love for the home Leninist party and loyalty to its ideals were further strengthened in the sailors' hearts. With avid enthusiasm, the sailors joined the struggle to carry out the decisions of the 26th CPSU Congress.

The Decree of the CPSU Central Committee, the USSR Council of Ministers, the AUGCTU and the Komsomol Central Committee "On the All-Union Socialist Competition for Successfully Fulfilling and Overfulfilling the Quotas of the 11th Five-Year Plan emphasizes that to improve the competition's organization means to also be concerned with increasing the indoctrinational role of patriotic initiatives. The collective has endeavored to carry out this demand in practice. For the sailors participation in the movement for the leading formation has become a school of patriotism and a school for indoctrinating collectivism and naval friendship. The struggle to confirm this title by the end of the training year has been carried out under the slogan "The Formation's Honor is Your Honor." The common high goal has united the collective into a single combat family where help for a comrade is considered to be a requisite standard of conduct and the observance of the standards of communist morality and active participation in social work are taken into account in summing up the results along with successes in training.

The experience acquired on the "Tashkent," in the mentioned formation and in the other leading military collectives in organizing an effective competition convincingly confirms that the spirit of true competitiveness lives and brings the desired results where they are able to arouse, maintain and develop the initiative of the men and where conditions are created for the manifesting of their talents and abilities and a creative attitude toward the assigned job. Unfortunately, not all the communist leaders are aware of this. More correctly, not all of them have as yet mastered this ability. Some commanders and political workers know the Leninist principles of organizing the competition and the party's ideas by heart. In their words they favor initiative by the men but in fact do not bother themselves with the painstaking work required to provide a beneficial application of this initiative.

In this regard, valid criticism is due the command and party organization of the ship where Sr Lt V. Arzamastsev is the party bureau secretary. In carrying out the socialist obligations, the ship crew holds last place in the formation. Here there is almost half the number of outstanding men and class specialists than on the "Tashkent," and the indicators are also lower in combat and political training. When they began to analyze the reasons for such a state of affairs, it was discovered that neither the ship's commander, his deputy for political affairs, the party bureau or the Komsomol committee was effectively concerned with organizing the competition and tried to get by with the mere observance of form. The crew hurriedly approved and supported the initiative of the Northern Fleet submariners. They hurriedly adopted "average-ceiling" obligations and joined the competition under the motto "For High Combat Readiness and Firm Military Order!" But because of the hurry the sailors did not understand either the essence of the motto or what each of them must do in order to carry it out.

However, it must be said that in the crew there were a number of sailors, petty officers, warrant officers and officers from among the communists and Komsomol members who, in showing initiative, assumed high socialist obligations aimed at the high-quality execution of the tasks confronting the ship. But their enterprising initiatives were not properly supported by the ship's command, the party bureau or the Komsomol committee. As a result, the initiative died out.

Formalism kills any vital undertaking, including creative initiative in a competition. On the ship they had not established such valuable initiatives as the struggle to hit the targets at maximum range with the first round, launch or run, for the right to be called the successors of the best wartime specialists or for making certain that there were no laggards around the outstanding men. This happened merely because here they had a formal and official attitude toward the propagandizing of them.

In assuming individual obligations, each serviceman manifests certain initiative. But what happens after this, a deed or empty words, depends largely upon the moral atmosphere in the collective, upon the check on execution and comradely mutual aid. The ship's commander, the party and Komsomol organizations, we must say frankly, worked without proper tenacity to create such an atmosphere and for having the communists and Komsomol members set a personal example in the competition. Among those who idly scatter words to the wind were the communists T. Khabibulin, I. Petrov and S. Belonogov. During the winter training period, 12 Komsomol members did not carry out the socialist obligations they had assumed while none of them made a report to the Komsomol committee or in the subunit Komsomol organizations.

The fleet military council and political directorate took measures to make the competition's organization on this ship conform to the demands of the party, the USSR minister of defense and the Main Political Directorate of the Soviet Army and Navy. A strict rebuke was delivered to the command of the formation in which this ship was included for the fact that it had not promptly corrected the commander and the political worker and had not properly assessed the formalism in their work. The formation's political section and staff helped the officers, the party and Komsomol organizations on the ship eliminate the shortcomings in the style of their activities. Serious corrections were made in the competition's organization on the ship in order to make up for the lost ground.

The fleet military council and political directorate are constantly concerned with improving the leadership of the competition, increasing its effectiveness and developing the initiative and creativity of the Pacific Fleet sailors in light of the requirements of the 26th CPSU Congress. One of the military council sessions thoroughly and exactly analyzed the activities of the unit and formation commanders, political bodies and staffs in this area. It was pointed out that the broad involvement of the personnel in the patriotic movement has a positive effect upon increasing their sociopolitical activeness and on raising the efficiency and quality of working through the combat training tasks. The command and political personnel, the party and Komsomol organizations of a majority of the ships, units and formations support and develop the creative initiative of the competition's participants and are doing definite work to propagandize the experience of the leading collectives who are the initiators of rivalry in military service. The procedural councils and innovator councils also have made a strong contribution to disseminating the valuable undertakings of the sailors.

At the same time, the military council has focused the attention of the commanders, the political bodies, the staffs, the party and Komsomol organizations on the fact that the competition is not everywhere a vital, creative concern of the masses and that in some places the obligations are worked out not from below but are rather "let down" from above while the indoctrinational force of the competition is not fully utilized. On certain ships and in some subunits, the publicizing and comparison of the military rivalry and the introduction of advanced experience leave much to be desired. In individual troop collectives there still is a push for a high percentage of outstanding men and class specialists while the obligations unjustifiably omit the questions of the quality with which the combat training tasks are carried out, the exceeding of the standards or savings and thriftiness. All of this is lost as a consequence of poor leadership of the competition.

The decree adopted by the military council outlines the ways and measures for eliminating the designated and other shortcomings. The officers of the fleet political directorate and staff, the unit and formation political bodies and staffs are making every effort so that the competition becomes an inseparable part of the combat training process and that in the course of it the three most important factors are merged together, that is: initiative and activeness by the men in carrying out the tasks of increasing fleet combat readiness, constantly deepening their own political knowledge and their daily involvement in social life. Certainly the concept "combat readiness" includes not only the training level of the personnel, the ability to use military equipment and weapons and strong discipline, but also a spiritual community of the men, their profound understanding of military duty and their total dedication to the Communist Party and the motherland.

Has this work paid off? It certainly has. But at present, at the end of the training year, we can more clearly see also the unsolved problems and the unused reserves. In the fleet there are troop collectives which are carrying out their given tasks and socialist obligations with indicators below their potential. The reasons for this are not all the same. But some of the most typical ones must be mentioned.

Unfortunately it is still not the rule everywhere that the commander and the men demand a unity of word and deed from each man, and primarily from the officers while a comprehensive approach has not been introduced for solving training and indoctrinational questions in the process of the competition. Only this can explain

instances where individual ship and staff officers, having assumed specific obligations to improve the quality of training, nevertheless permit weaknesses in conducting the exercises and in working through the combat training tasks.

At times the attention of the competitors is focused chiefly on an initiative related to mastering weapons and equipment or increasing combat skills while obligations are overlooked which envisage participation in the struggle for honor and dignity, for the excellent appearance of the men, for the exemplary standing of duty and watch, for proper conduct, that is, those which directly influence the strengthening of military discipline and proper order. These obligations are rarely recalled in summing up the results.

The overcautiousness of individual leaders also restrains the development of initiative among the men and its greater influence on the effectiveness of the competition. Take a ship. The individual obligations of the sailors would permit the bringing of it up amongst the leaders and the excellent. But the commander and the political worker do not set this goal for the collective.

Need it be said that such a viewpoint is harmful as it dampens the good moral drives of the men.

Initiative, as a rule, will scarcely survive in those military collectives where little individual work is done with the sailors, petty officers, warrant officers and officers. Some out of timidity, others out of a lack of confidence in their own forces and still others out of a desire for an untroubled life do not show initiative. To reach each man means to convince him, to help the man determine to assault the heights of military and moral development, to involve him in a true competition with a fellow serviceman and make certain that he is constantly aware that the commander, the political worker, the party and Komsomol organizations see and value his industry and effort. It is very important to praise a person in a success, to promptly rebuke him if he has fallen behind in work, and to suggest how to reach the goal set by himself. Then he will gain satisfaction from his creative effort. Even if a soldier has not gotten the best of a rival, this is still a victory. Victory over one's timidity or inertia, a victory of one's will power.

The competition's effectiveness is also reduced where party leadership of the Komsomol is not properly carried out. It is natural for youth to dare and become involved. The fleet Komsomol members often are the initiators of various undertakings. It is the duty of senior comrades to carefully analyze whether the initiative manifested by them is truly valuable or artificial. The useful must be supported, taken under party control and helped in being carried out. Quick solutions must be cautioned against. Unfortunately, often not enough such attention is given to the activities of the Komsomol organizations. For this reason, for example, such good youth initiatives as the movements under the mottoes: "Komsomol Concern for Training Facilities," "A Technician's Knowledge for a Mechanic" and "A High-Class Rating for Basic and Related Specialties" in some places have not brought the desired effect.

Finally, individual communist leaders have still not learned to disseminate and introduce the experience of the innovators in an effective way, as the party requires. Of course, the experience of the pacesetters is propagandized and handed on. It is

publicized and an effort is made to make it attractive for others at meetings, seminars, service conferences and on the pages of the fleet press. The same crew of the "Tashkent" has borrowed a great deal from last year's initiator of the competition in the Navy, the crew of the large ASW vessel "Petropavlovsk," while its own experience has been now adopted by the personnel of other ships. But far from all proceed in this manner. Certain officers shrink before seeming difficulties and follow the long familiar rules. "The old way is the best way," argue such leaders, "as you know every turn along it. But everything is strange on a new one and you can stumble." Here again is the same overinsurance.

We are endeavoring to get rid of these negative phenomena by improving indoctrinational work with the commanders and political workers, the party and Komsomol aktiv in a spirit of the requirements of the 26th CPSU Congress. At present, when the end of the training year is drawing near and its results must be summed up as well as the results of carrying out the socialist obligations, the fleet military council and political directorate have focused all the command and political personnel on an exacting analysis of what has been achieved and on a search for reserves and opportunities to further develop the initiative of the Pacific Fleet sailors and to raise the effectiveness of the competition. Our aktiv is also focused on this in order that, in the course of the reports and elections in the party and Komsomol organizations, all the communists and Komsomol members carry out a creative search for ways to strengthen the socialist competition's influence on the effective carrying out of the main task, that is, to maintain fleet combat readiness on a level of the party's present demands.

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NAVAL FORCES

OFFICER MISCONDUCT: FOLLOW-UP REPORT

Moscow KOMMUNIST VOORUZHENNYKH SIL in Russian No 21, Nov 81 (signed to press 20 Oct 81) p 96

[Unattributed follow-up on unpublished letters]

[Text] The editors have received a letter which described violations in the procedure for allocating housing as well as other abuses of official positions by certain officials in garrison X. The letter was forwarded to the Navy Political Directorate for verification.

The First Deputy Chief of the Navy Political Directorate, Rear Adm S. Vargin, informed the editors that Maj N. Panin, in being the chairman of the unit housing commission and benefiting from a lack of proper control by the command, permitted deviations from the established procedures of providing housing and scarce goods to the servicemen. In benefiting from his official position, Maj Panin used his subordinates to build a private garage.

For the committed abuses, Maj Panin was brought before the party authorities and presented for discharge into the reserves.

Officers V. Penzev and Yu. Kulikov were strictly reprimanded for serious omissions in indoctrinational work with subordinates.

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PERCEPTIONS, VIEWS, COMMENTS

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Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 1-2

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The articles by Soviet authors and the chronicle are based on materials in the
foreign press. This issue contains illustrations from "Jane's" and the following

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON NATO EUROSTRATEGIC NUCLEAR FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 7-10

[Article by Engr-Col I. Belov: "'Eurostrategy' and NATO Eurostrategic Nuclear Forces"]

[Text] U.S. foreign policy has always been characterized by adventurism. Recently, however, it has greatly intensified. The Reagan Administration, escalating the arms race to an unprecedented degree, has chosen the path of heightening international tension and confrontation with the Soviet Union and the other nations of the socialist community. It considers strategic nuclear weapons to be principal means of carrying out its aggressive schemes.

Counting on initiating a nuclear war, U.S. leaders well understand that in such a war, in contrast to past military conflicts, the United States will be unable to remain beyond the reach of the potential adversary. His response strikes will be no less powerful than those which the U.S. nuclear maniacs are planning to deliver. This is why there have begun to appear in the U.S. press materials on new strategic plans aimed at keeping armed conflicts beyond U.S. borders and at transforming Europe into an arena of nuclear battles. Foreign experts believe that precisely such an aim is pursued by the recently issued U.S. Presidential Directive 59 and the proposals proceeding from it, which call for elaborating a so-called "NATO Eurostrategy" and establishment of NATO Eurostrategic nuclear forces. Establishment of such forces will also foster to a no lesser degree an increase in the element of surprise in a nuclear attack on the enemy because strategic nuclear weapons will be employed closer to his territory, which shortens missile en-route time to target, and consequently shortens advance warning.

U.S. and NATO leaders have always endeavored to breathe "new life" into NATO when serious differences of opinion arose within the bloc. Therefore the proposal to establish NATO Eurostrategic nuclear forces, presented under the phony slogan of protecting "European interests" within NATO, obviously also pursues the aim of strengthening the unity of the member nations, for the shameless militarism of U.S. ruling circles has evoked in virtually all European NATO member countries not only displeasure but also concern about the serious consequences of such a policy.

Also of interest is the fact that the idea of NATO Eurostrategic nuclear forces was brought out just before the United States proposed deployment of new ballistic and

cruise missiles in a number of European NATO member nations. Apparently the purpose was to facilitate adoption of a decision by NATO on this problem as well.

U.S. leaders are attempting with the official establishment of Eurostrategic nuclear forces to bind their European allies even more tightly to their adventuristic policy and to involve them even more actively in a new round of the arms race. One can see here an endeavor on the part of U.S. militarists to divert from the United States a powerful enemy response strike, to make U.S. allies the target of such a strike, and to limit to the European continent a nuclear war initiated by the United States. These U.S. plans, however, showing treachery toward that country's NATO partners, were evidently seen through by these countries. It is not merely by chance that France suggested, as a counterproposal to the U.S. plans, establishing Eurostrategic nuclear forces which would be independent of the United States, consisting of French and British contingents and under French or joint French-British command. As we see, the U.S. proposals have not diminished discord within NATO, while the question of official establishment of Eurostrategic nuclear forces has not yet been settled. But we stress the word official, for in actual fact such forces already exist. And now it has been decided to strengthen them to a considerable degree with new U.S. medium-range ballistic and cruise missiles.

Just what is the present status of NATO strategic nuclear forces in Europe?

As is reported in the foreign press, in case of war five U.S. nuclear-powered fleet ballistic missile submarines (Figure 1) [not reproduced] are to be placed at the disposal of the supreme commander of NATO Joint Forces in Europe; these submarines carry Poseidon C3 missiles (a total of 80 missiles with MIRV-type multiple warheads -- 10 or 14 Mk 3 warheads per missile, with a yield of 50 kt each, and a range of 4,600 km). The journal NATO'S 15 NATIONS also includes 170 (156 according to other reports) F-111E and F fighter-bombers -- nuclear-weapon carriers deployed at U.S. air bases in Great Britain (they have a combat radius of 2,400 km) in Eurostrategic forces.

Great Britain is planning to assign over four "Resolution" class nuclear-powered ballistic missile submarines armed with Polaris A3 missiles (a total of 64 missiles with 192 Mk 2 warheads of 200 kt yield each, range 4,000 km) and 56 Vulcan B-2 medium strategic bombers (Figure 2) [not reproduced], 46 of which are in combat units (each such aircraft carries nuclear bombs and has a combat radius of 2,800-4,600 km). The British Government has decided, as a replacement for present nuclear-powered ballistic missile submarines, to build in the 1990's four or five new nuclear-powered submarines armed with U.S.-built Trident I missiles (each missile will carry a MIRV warhead -- 8 Mk 4 100 kt warheads, range 7,400 km). Five billion pounds are being allocated for this program. In coming years, however, existing Polaris A3 missiles are to be fitted with new MIRV warheads developed in the Chevaline program.

The British Government hedges the transfer of strategic forces to NATO with the condition of "preserving higher national interests," which signifies its intention to reserve for itself the right to make final determination of the matter in relation to circumstances.

Nor are U.S. and NATO leaders writing off French strategic forces, although in 1966 France withdrew from the NATO military organization. French strategic forces presently have 18 launchers for S2 and S3 intermediate-range ballistic missiles (S2 missiles are being replaced with S3 missiles, a process scheduled for completion by the end of 1982). The S2 carries a 150 kt warhead (range 2,750 km), while the S3 carries a megaton-class thermonuclear warhead (range in excess of 3,000 km). These forces also include five nuclear-powered ballistic missile submarines carrying 16 M2 missiles each (500 kt warhead, range 2,400 km), which are currently being replaced with M20 missiles (megaton-class warhead, range up to 3,000 km). An additional nuclear-powered ballistic missile submarine is to be commissioned by 1985, while all are to be armed with more powerful M4 missiles with MIRVed warheads (each missile carrying 7 150 kt warheads, range 4,500 km). By 1985 French submarines will be carrying 672 in place of 80 nuclear missile warheads. The new French Government is considering the possible construction of two additional nuclear-powered ballistic missile submarines.

It is reported in the foreign press that while Great Britain and France are currently assigning one or two nuclear-powered ballistic missile submarines to combat patrol duty, in 1985 France will be able to send out as many as three missile-armed submarines on patrol missions.

France has 50 Mirage-4A medium strategic bombers, 36 of which are in combat subunits. Each carries a nuclear bomb (60 kt) and has a combat radius of 1,200-1,800 km.

In conformity with the decision of NATO governing bodies, a decision imposed by the Pentagon, in 1983 it is planned to commence the deployment of 108 new Pershing II missiles in Europe (range 1,800 km*), as well as 464 land-based cruise missiles (2,500 km). All these will be highly accurate, mobile-based missiles. Missile subunits are to be manned by U.S. personnel and deployed in the FRG, Great Britain, Italy, Belgium, and the Netherlands, although the two latter countries have not yet made a final decision on this matter. All NATO members except for France have agreed to share in the financing of facilities for deployment of these missiles.

It is noted in the Western European press that U.S. strategic nuclear forces assigned to NATO will be employed in fact without the knowledge of NATO authorities but on orders by the U.S. President, since NATO Joint Forces in Europe are always under the command of a U.S. general, who simultaneously serves as commander in chief of U.S. forces in Europe and is subordinate primarily to the Pentagon and the President of the United States.

In regard to development prospects for NATO strategic nuclear forces in Europe, the foreign press reports that U.S. and NATO leaders intend to arm them by the mid-1980's with higher-yield nuclear munitions (megaton-class) and MIRVed warheads. There is a possibility that in the future European cruise missiles will be adopted, as well as a possible increase in the number of nuclear-powered ballistic missile submarines. There is a growing trend among NATO member nations to establish within NATO European strategic nuclear forces independent of the United States. It is believed that the mid-1980's may signify a "new step" in the development of NATO nuclear forces in Europe.

* 2,500 km according to other figures in the Western press -- Ed.

Thus although an official decision on establishing NATO Eurostrategic nuclear forces has not yet been reached, in actual fact such forces exist and are continuously being strengthened. Plans for their employment pursue patently aggressive aims and are directed against the Soviet Union and the other nations of the socialist community. This obliges Soviet servicemen to keep vigilant watch on the intrigues of the imperialists and, together with the fighting men of the brother armies, alertly to stand guard over the achievements of socialism.

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PERCEPTIONS, VIEWS, COMMENTS

SOVIET COMMENTS ON MODERNIZING OF CHINESE ARMED FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 10-15

[Article by Col K. Borisov: "Modernization of China's Armed Forces"]

[Text] Organizational development of China's armed forces is based on Maoist military-strategic ideas, the substance of which is determined by the hegemonist, anti-Soviet and antisocialist policy of the present Beijing leaders. The army is viewed as the leading force in supporting a political strategy aimed at transforming China into a mighty militarist power which could establish hegemony in the world arena.

China's armed forces, as is reported in the British reference book entitled "Military Balance," total 4,450,000 men. All military services (missile forces, ground forces, air force, navy) and combat arms are represented.

Missile forces began to be formed at the beginning of the 1960's. According to the above reference volume, they are equipped with approximately 140 launchers for ballistic missiles of various types (Figure 1) [not reproduced].

The ground forces (3,600,000 men), which are the foundation of China's armed forces, organizationally consist of 35 army corps, 118 infantry, 11 tank, 3 airborne, and 40 artillery divisions of the regular army, 85 local-forces infantry divisions, as well as support and service units and subunits. Their armament includes approximately 11,000 tanks, 16,000 artillery pieces, other weapons and combat equipment.

The Air Force (490,000 men) includes all air arms, antiaircraft missile units and antiaircraft artillery, as well as radar subunits. China's military air fleet totals approximately 5,200 combat aircraft.

Naval forces (approximately 360,000 men) include 1,500 ships and craft of various types, including more than 90 submarines, 12 guided missile destroyers, and 11 guided missile escorts (frigates). Foreign military experts believe that the Navy is capable of performing missions primarily involving defense of coastal waters and control of straits and shipping lanes. At the same time Chinese command authorities have by no means given up their plans to build a navy capable of not only of operating in the seas washing China's shores but also of maintaining a presence in the Indian Ocean and Pacific.

The Third Session of the All-China Assembly of People's Representatives (AAPR), 5th Convocation, held in September 1980, described the Chinese army as a "faithful defender of the cause of the four modernizations" and specified the task of "strengthening it and increasing its combat efficiency." Emphasizing the need to modernize the armed forces, Deng Xiaoping stated, according to a report in the foreign press, that the army had become swollen and that discipline was lax.

Recently Chinese leaders have time and again stated their desire to increase the prosperity of the people and that this goal is promoted by the program of "four modernizations" -- agriculture, industry, defense, science and technology. Even a certain reduction in direct military expenditures, with the aim of speeding up development of the nation's economy, was announced at the Third Session of the AAPR. As is noted in the Western press, however, the main content and end objective of the notorious "modernization" consists in qualitative reequipping the armed forces, transforming them into a modern army capable of achieving the hegemonistic aims of the present Chinese leadership. AAPR permanent committee chairman Ye Jianying, addressing a meeting dedicated to the 50th anniversary of the Chinese People's Liberation Army, stated frankly that modernization of the armed forces consists in establishing powerful ground forces, air and naval forces, and arming them with modern weapons, including nuclear missiles.

According to official figures, in recent years China's military expenditures have comprised approximately 17 percent of total budget appropriations. This figure, in the estimate of Western military experts, reflects only direct military expenditures on maintaining China's huge army. It is noted thereby that in 1980, for example, this amount increased from 10 to 13.06 billion dollars in comparison with 1977, while it reached a record level in 1979 -- approximately 36 billion. The largest allocations for military purposes directly connected with modernizing the armed forces, including expanded research and development and purchase of new combat equipment, are contained in other budget items. According to figures published in Great Britain, China's total military expenditures amount to 10 percent of the gross national product.

According to the London newspaper DAILY TELEGRAPH, the main directions of and timetable for modernizing China's armed forces were specified in a directive issued by the Military Council of the CPC Central Committee in August 1980. The program drawn up by the Chinese leaders specifies that the process of modernization will be in progress up to the end of the 1980's, while in the estimate of foreign experts the process will proceed at a somewhat slower pace. This is due to the necessity of initially solving acute economic problems (creating a modern industrial and military-technology base, accumulating hard-currency funds for purchase abroad of advanced equipment and production technology), and of training the needed scientific cadres and skilled specialists. The newspaper states that China's main efforts will be focused on developing new weapons as well as on improving the troop control system (primarily by adopting modern communications equipment).

Beijing's ambitious plans completely to modernize its armed forces by the end of this century have encountered serious obstacles of an economic nature. The Chinese leaders have also been forced to acknowledge this in veiled form. At the end of January 1981 the Military Council of the CPC Central Committee, reported the Xinhua news agency, demanded "utilization with maximum effectiveness of available

financial and material resources," revision of plans for building secondary facilities, and adoption of a stringent economy regimen. The Chinese press emphasizes that the program for "regulating the economy" which has been in progress since 1979 is being applied in full measure to the army, and since the period of "adjustment" is being extended at least to 1985, the timetable for modernizing the armed forces is also inevitably being extended.

Missile forces absorb the lion's share of appropriations allocated for reequipping the armed forces. According to the Hong Kong bulletin ZHONGBAO, China has four types of ballistic missiles: CSS-1 -- a limited medium-range missile (1,900 km) with a 20 kt nuclear warhead; the CSS-2 -- medium range (2,700-4,000 km); CSS-3 -- limited intercontinental range (6,500 km); and the CSSX-4 -- intercontinental range (11,000-12,800 km). Test launches of the latter were conducted in May 1980. As is emphasized in the foreign press, practically all ballistic missiles are deployed in land-surface launcher positions, with construction of underground silo-type launchers in progress since 1977. The bulk of China's missile systems, according to the newspaper WASHINGTON POST, involve ballistic missiles with liquid-fuel rocket motors, one important drawback of which is the relatively long time required to ready them for launch.

Further development of this branch of the armed forces, in the opinion of Western experts, will take place along the line of modernizing existing missile systems, and particularly improvement in their protection. In addition, states the journal U.S. NAVAL INSTITUTE PROCEEDINGS, China has allocated a substantial portion of its resources to weapons systems development projects, which may exert considerable influence on increasing the strategic offensive capabilities of China's armed forces in the latter half of the 1980's. In particular, it is anticipated that during this period the Chinese military will put on operational status intercontinental ballistic missiles some of which will be deployed in launch silos. In the estimate of foreign military experts, development of mobile intercontinental ballistic missile systems is practically out of the question in the near future due to that country's technical backwardness.

According to the Hong Kong bulletin ZHONGBAO, China is engaged in intensive efforts in the area of development of solid-fuel rockets, and in 1979 supposedly obtained promising results, which may lead to the appearance of a new generation of tactical, operational-tactical, and even strategic missiles. U.S. investigators believe that in 1980 China's Navy received an experimental ballistic missile for nuclear powered submarines (CSS-N-X) which, according to their preliminary calculations, may have a range of 2,200-2,700 km and carry a 20-200 kiloton nuclear warhead.

At the same time active research is being conducted in the area of developing new nuclear warheads. It has been noted in the Western press that tests at the Lop Nor range in recent years have included at least three detonations of nuclear devices designed for missile warheads. The bulletin ZHONGBAO also reports stepped-up research efforts in the area of developing neutron warheads.

Development of a new Chinese tank is one of the major items in the program to modernize the ground forces. The T-59 medium tank and the T-62 light tank, with which units and combined units are currently equipped, in the estimate of foreign military experts do not fully meet requirements, since the former possesses inadequate maneuverability, while the latter does not carry sufficiently thick armor.

ZHONGBAO pointed out in this connection that research and development in this area has been conducted in China since the beginning of the 1970's. It is not surprising that this country's specialists have in recent years shown heightened interest in Western armored vehicles, especially the West German Leopard-2 tank, the French AMX, and the British Chieftain. China has no intention, however, of purchasing large numbers of costly equipment, but is seeking access to the manufacturing technology for certain components, the most complex items -- high-quality armor plate, gun stabilization system, and fire control equipment, including laser gunsights.

As regards artillery systems, as the bulletin ZHONGBAO notes, China's artillery divisions boast fairly large firepower, but their mobility is limited, since primarily trucks are employed as motive power. Considerable attention is being devoted to lightweight man-portable antitank and surface-to-air missiles for infantry subunits. The antitank guided missiles manufactured by China's military industry (weight 11.3 kg, length 860 mm, maximum range 3,000 m, wire-guided) do not entirely satisfy the Chinese command authorities. Therefore new models are being developed, which in their performance characteristics would approximate Western counterparts (for example, the MILAN antitank missile). It is believed in the West that the fact that subunits are not armed with portable antiaircraft missile systems is because China lags considerably in the area of electronics applications. However, China is currently working actively on the development of its own antiaircraft missile system, the prototype of which is the British Blowpipe system.

The experience of the Chinese aggression against socialist Vietnam in 1979, in the opinion of foreign experts, revealed many weak points of China's ground forces. A poor degree of motorization of units is one of the main deficiencies, on the correction of which the efforts of China's command authorities are presently concentrated. For this reason plans call for building more armored personnel carriers, infantry fighting vehicles, and troop-carrying helicopters. Plans also call for substantially increasing deliveries of control and communication equipment to the military. Also on the agenda are such items as adoption of a convenient and practical field service dress and restoration of the system of military ranks.

Modernization of air forces calls for the conduct of research and development in the area of designing and building new types of combat aircraft (a fighter, attack aircraft, and strategic bomber). Currently the principal fighter is the F-6 Shenyang, which possesses good performance characteristics, according to ZHONGBAO. In the estimate of Western observers, at altitudes below 4,000 meters and at subsonic speeds it is superior to the U.S. F-104 and F-4 fighters. The F-6 Fantan attack aircraft was designed on the basis of this fighter (various sources also mention the A-5 and Qiang-5), the principal deficiency of which is a short combat radius. Also in production is the F-7 fighter. An attempt by the Chinese to develop a fighter with a speed of greater than Mach 2, the F-8, was unsuccessful, with the jet engine the weakest point. The B-6 and B-5 aircraft form the bulk of China's bomber force.

At the end of the 1970's China obtained from Great Britain a license to build Rolls Royce Spey engines and set up production at a plant in the city of Xian. The great thrust capabilities of these engines have enabled Chinese design engineers to come close to accomplishing the task of developing modern fighters and attack aircraft. As reported by ZHONGBAO, flight tests have already commenced on the

F-12A delta-wing fighter and the F-12B swing-wing fighter-bomber. Both aircraft are powered by twin Spey engines. In the estimate of foreign experts, these aircraft are of the same class as the U.S. F-4 fighter.

Considerable attention is being devoted to development of aircraft armament. China's air forces possess heat-seeking air-to-air missiles (Figure 2) [not reproduced]. A new rapid-fire aircraft cannon is being developed.

Much is written in the foreign press on China's interest in obtaining certain types of modern Western combat aircraft. Negotiations have been in progress for several years, for example, on purchase of British-built Harrier VTOL aircraft, and the question of obtaining the Tornado swing-wing multirole fighter, the French-built Mirage-2000 and Mirage-4000 aircraft, as well as U.S.-built F-16 and A-10 aircraft is being actively studied. Chinese proposals to place orders to purchase small number of units of equipment, however, are not to the liking of Western companies, while Beijing lacks the capability to pay for large-scale imports.

According to the American journal U.S. NAVAL INSTITUTE PROCEEDINGS, building of a nuclear-powered undersea fleet is one of the central items in the program to modernize China's naval forces. Torpedo-armed nuclear-powered submarines would be built at the first stage, and later -- nuclear-powered submarines armed with ballistic missiles. The foreign press notes that Chinese experts have not yet solved certain technical problems. For example, a nuclear-powered torpedo-armed submarine was launched in 1971, but it did not take its maiden voyage until 1975. A second boat of this type was commissioned in 1978 and, as reported in the Chinese press, served as a test platform for developing ballistic missiles. In the estimate of foreign investigators, research and development in the area of building a nuclear-powered submarine fleet is being conducted in China for the most part in the same directions as was the case in the United States and France at the initial stage of development.

The plans of the Chinese leaders also include building fleet carrier forces. The British journal NAVY FORCES reported in particular Great Britain's willingness to take part in developing for China aircraft carriers of two classes, of 12,500 and 7,200 tons displacement. The former will have a speed of 28 knots, an operating radius of 3,500 miles, and will be able to carry 5 Sea Harrier fighters and 9 ASW helicopters (or 12 fighters and 4 helicopters), while the latter will have a speed of 25 knots, an operating radius of 2,250 miles, and will be able to carry 8 fighters and 2 helicopters.

A guided missile destroyer of the "Lüda" class is considered to be the most battle-worthy surface unit of China's naval forces, although it no longer fully meets today's demands. In connection with this, the Chinese are showing heightened interest in new ships of this type serving in the navies of Western countries. It is reported in the bulletin ZHONGBAO that China has sounded out the possibility of purchasing from Great Britain a "Broadsword" class destroyer (standard displacement 3,500 tons, speed 30 knots), which is equipped with modern electronic gear, antiship missiles, surface-to-air missiles, guns, ASW helicopters and torpedoes. It is believed that the high cost of ships of this class (approximately 95 million pounds sterling) could serve as an obstacle in concluding a deal.

Development of fleet amphibious landing forces is an important item in the program of modernizing China's navy. In particular, plans call for expanding the production of new classes of large-capacity amphibious landing vessels, as well as high-speed hydrofoil landing craft.

The majority of Western investigators believe that without enlisting the scientific advances and technology of the West, with the present state of China's material and technological base, that country would take decades to modernize its armed forces. Precisely for this reason, states the newspaper NEW YORK TIMES "the Chinese military are intensively searching world markets in the quest for weapons, dispatching thousands of technical experts to Western European countries for this purpose." The developed capitalist nations are expressing willingness to help rearm the Chinese army in exchange for the brazen anti-Sovietism of Beijing leaders. As was stated in the Japanese newspaper MAINICHI, resolution of this matter depends in large measure on the position of the U.S. Government, which has stated time and again that a "strong China" is in the strategic interests of the West.

Foreign military experts note that the Carter Administration took the first step toward assisting in modernization of China's armed forces, approving more than 400 licenses for the export of "dual use" equipment, including heavy trucks, transport aircraft, helicopters, electronic equipment, communications gear, radars, pilot training simulators, and aircraft midair refueling equipment, that is, those components which will greatly help increase the mobility of units and combined units, improve the troop control and weapon control system, increase intelligence gathering and reconnaissance capabilities, and increase subunit transport capabilities. The Reagan Administration has gone even further, hastening to remove restrictions on the sale of offensive arms to China. Many sober-minded Americans have condemned these actions. Former U.S. Secretary of State C. Vance, for example, stated that "this decision was a serious mistake."

Western military experts generally agree that in the near future China will be modernizing its military not by large-scale import of modern arms but chiefly by purchasing single items or small consignments of weapons and combat equipment as well as their manufacturing technology, the extensive conduct of research and development, and comprehensive development of China's own military industry. In the near future principal efforts will be focused on developing new armored vehicles, antitank guided missiles, and mobile surface-to-air missiles to down low-flying targets, and modern combat aircraft. In the area of nuclear weapons and rocketry, it is believed in the West that China will focus its efforts on further development of intercontinental ballistic missiles and the development of new types of warheads and nuclear munitions.

All this indicates that the Beijing leaders are devoting principal attention to militarization of China with the aim of carrying out aggressive actions against neighboring sovereign nations, the employment of force in resolving complex international problems, and interference in the affairs of other countries.

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PERCEPTIONS, VIEWS, COMMENTS

SOVIET COMMENTS ON U.S., CHINESE INFLUENCE IN PAKISTAN

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 15-18

[Article by Col (Ret) P. Aleksandrov: "Pakistan in the Aggressive Plans of the United States and China"]

[Text] Since the revolution in Afghanistan, overthrow of the Shah's regime in Iran, and collapse of the CENTO bloc, the role of Pakistan in U.S. and Chinese strategic plans, especially those pertaining to Southwest Asia and the Indian Ocean, has increased substantially. In the estimate of foreign experts, its significance is determined by a number of factors, particularly its advantageous geographic position: its proximity to the oil-rich Persian Gulf, and a common border with Afghanistan, India, and Iran.

The main objective of the U.S. imperialists and their Beijing accomplices is to transform Pakistan into a bridgehead for the conduct of aggressive actions against the Democratic Republic of Afghanistan and India and for monitoring the situation in Iran, as well as to use its territory as a transloading base for U.S. "rapid deployment forces" and to impose upon it the role of policeman which the Shah regime previously performed in this region.

Involvement of this country in Sino-American expansionist plans, which are a component part of overall measures aimed at undermining international détente, is being carried out in several areas. The most important at the present stage, judging from reports in the foreign press, is the strengthening of Pakistan as a U.S. and Chinese bridgehead for conduct of an undeclared war against the Democratic Republic of Afghanistan.

Pakistan has become an area of partnership between Washington and Beijing, in particular in connection with stepped-up political support and military assistance by both countries to the Afghan rebels, who have set up shop on Pakistani territory in the guise of "refugees" and who enjoy the protection of the Zia-ul-Haq regime. There are presently approximately 80 special bases and camps established in Pakistan, in which, under the supervision of U.S. and Chinese advisers and specialists, military training is given to bands of Afghan counterrevolutionaries, which are sent into the DRA to carry out terrorist and sabotage activities. The main bases and camps are located in the vicinity of the towns of Chitral, Peshawar, Parachinar, Kohat, Bannu, Miram-Shah (North-Western Frontier Province), Quetta, Pishin, and

Nushki (Baluchistan Province). All these facilities can accommodate the simultaneous training of approximately 5,000 cutthroats. The United States, however, wants to step up to an even higher level hostile actions against Afghanistan from Pakistani territory and intends to employ CIA-recruited U.S. and British mercenaries for participation in bandit raids together with Afghan basmaks. Indian newspapers report that the first groups of these mercenaries have already arrived in Pakistan.

Islamabad has not only permitted the United States and China to establish bases and centers for organizing interventionist detachments on Pakistani soil, but is also actively recruiting Pakistani officers as instructors to train the Afghan rabble. Interrogation of prisoners and captured documents, as is noted in the foreign press, attest to the fact that training of these bandits is being organized and directed by a so-called "joint military headquarters," in which an important role is played by Pakistani specialists. In addition, some bands of counterrevolutionaries are training directly with Pakistan military units stationed in areas adjacent to Afghanistan.

The military administration of General Zia-ul-Haq, while having banned activities by political parties, at the same time has given complete freedom to various Afghan counterrevolutionary organizations. According to information in the foreign press, they have established headquarters in major cities -- Lahore, Peshawar, and Quetta. Afghan counterrevolutionaries are publishing and distributing in Pakistan a newspaper entitled DEATH FOR THE FAITH.

Doing the bidding of the United States and China, Pakistan's leaders are avoiding a political solution to relations with the DRA and are becoming increasingly drawn into extensive anti-Afghan actions. As the newspaper MUSLIM stated, the decision by the new U.S. administration openly to continue giving military assistance to the Afghan bandits will require that Pakistan become an even more active intermediary in supplying them weapons.

One of the ways in which Pakistan is being drawn into aggressive Sino-American plans is efforts by both countries, chiefly the United States, to transform Pakistan into a transit point for U.S. interventionist "rapid deployment forces," which would be deployed to the Persian Gulf region from Pentagon military bases located on the island of Diego Garcia or in the Philippines. The Americans, according to reports in the foreign press, are seeking use primarily of air and naval bases in Karachi, the port of Gwadar, and an air base in Peshawar. The Americans also propose stockpiling arms and combat equipment at these facilities.

Pakistan's special role in U.S. strategy in the Persian Gulf region is also determined by the fact that it has a large army.* Certain circles in Washington, as is indicated by the foreign press, harbor plans to employ Pakistani troops in military actions in the Persian Gulf region (primarily those troops which are already stationed in Saudi Arabia). From 10 to 15 thousand Pakistani military personnel are presently stationed in the Arab countries of this region, acting as advisers and specialists, as well as entire subunits and units.

* For more detail on Pakistan's armed forces see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 3, 1981, page 27 -- Ed.

By sending specialists and military units to the Arab countries of the Persian Gulf, Islamabad is repaying them for political support and financial aid, which totaled approximately 1 billion dollars in 1980 from Saudi Arabia alone.

The United States and China, as well as Saudi Arabia seek to draw Pakistan into a "regional security system" in the Persian Gulf region to combat national liberation movements and ensure the stability of monarchic regimes. They intend to draw all of the region's Arab countries into a proposed military-political alliance.

Transforming Pakistan into a bridgehead for their aggressive actions in Southwest Asia, the United States and China also intend to use this country as a lever with which to apply pressure on India. The Zia-ul-Haq military regime, feeling the backing of Washington and Beijing, is proceeding to aggravate relations with India and is stepping up subversive activities against it. Saboteurs are trained with the assistance of Chinese advisers at special bases in the Pakistan-controlled part of Kashmir and are subsequently sent into India. Recently the Pakistanis have succeeded in provoking serious disturbances in the Indian state of Jammu and Kashmir, as well as in provoking religious clashes in a number of cities in the state of Uttar Pradesh.

Such joint Pakistani-Chinese projects as construction of a network of roads in the northeastern parts of Pakistan, construction of air bases and other installations, as well as stationing of Chinese military units along the Karakoram Highway also aim at exerting pressure on India.

Seeking to expand military-political ties with Pakistan and to bind it more firmly to its policy, the U.S. Government is increasing military and economic assistance to the Zia-ul-Haq regime, part of which goes to the Afghan counterrevolutionaries. In June 1981 an agreement was reached between Washington and Islamabad, covering a five-year program of U.S. aid to Pakistan in an amount of 3.2 billion dollars, a large part of which will be utilized for militarist purposes. The Indian newspaper PATRIOT reported that Washington, extending credit to Pakistan for the purchase of arms, is seeking to sign a long-term military agreement with Pakistan, which would specify not only large-scale deliveries of arms but also the sending of U.S. military advisers and specialists to that country to assist in reorganizing its armed forces as well as to establish new bases on Pakistani soil.

The United States has also succeeded in expanding economic aid to Pakistan through international organizations. As reported by the journal FAR EASTERN ECONOMIC REVIEW, "Islamabad is presently receiving a massive infusion of funds from abroad, accompanied by rescheduling of repayment of past loans." Indeed, the International Monetary Fund, under pressure from Washington, approved a loan of 1.2 billion dollars to Pakistan, to be received over a period of 3 years.

China, which is presently Pakistan's principal supplier of arms and military equipment, is giving Pakistan considerable military assistance (totaling 2 billion dollars over the last 10 years). General Zia-ul-Haq has time and again called cooperation with Beijing the "cornerstone" of Pakistan's foreign policy. The PRC is continuing to deliver tanks, artillery, fighter-bombers, torpedo boats and patrol craft, etc.

Beijing is helping Pakistan build a facility for the repair and overhaul of Chinese weapons and military equipment as well as in the construction of various military installations and highways. In 1979, for example, construction was completed on the 820 km Karakoram Highway which links Pakistan with China's Xinjiang-Uighur autonomous region; other roads are presently under construction, in particular the approximately 200 kilometer Gilgit-Skardu highway. In the estimate of foreign experts, this will substantially expand the capabilities of the road network in the Pakistan-controlled portion of Kashmir to transport Pakistani and Chinese troops to Indian territory.

It is reported in the Indian press that Beijing is presently helping Pakistan build an air base in Gilgit and a new naval base in an area west of Karachi. In the Karakoram Mountains the Pakistani and Chinese intelligence services, jointly with the CIA and British "experts," intend to set up electronic equipment to collect intelligence on the Soviet Union, Afghanistan, and India.

Strengthening of military-political ties between Pakistan and China is also indicated by the fact that Chinese military units are already stationed on Pakistani soil. According to a report in the Indian newspaper NATIONAL HERALD, for example, approximately 3 Chinese infantry regiments are stationed in the vicinity of the town of Gilgit.

Under pressure from the United States and China, which are seeking to involve Pakistan in carrying out their aggressive plans in Southwest Asia, Islamabad is implementing a policy of militarization. Concealing its true purposes behind statements alleging a threat to Pakistan, the regime of General Zia-ul-Haq, in spite of Pakistan's difficult economic straits, is increasing year by year appropriations for military purposes. In the 1979/80 fiscal year, for example, they were increased by 10 percent over the preceding year, while in the 1980/81 fiscal year they increased an additional 12 percent, totaling approximately 1.41 billion dollars.

Primary attention in the military plans of Pakistan's leaders is devoted to further strengthening the armed forces, improving the troop control system, providing troops with improved weapons and combat equipment, and increasing the combat readiness of combined units and units. In the last four years (1976-1980), according to the figures of the London Institute for Strategic Studies, two additional infantry divisions, four independent infantry and two independent armored brigades, and several independent artillery units have been formed in the ground forces. Combined units have taken delivery on substantial quantities of modern weapons and combat equipment.

In the Air Force the number of combat aircraft has increased by 40 planes during the same period. Air-force units and subunits are equipped with Chinese-built F-6 fighters and French Mirage-3 fighters. Aircraft combat capabilities have been increased, especially for close combat, by arming them with air-to-air missiles: U.S. Sidewinders and French Matra R550s. In 1981 Pakistan's Air Force is scheduled to receive Chinese F-9 fighter-bombers and more than 30 French Mirage-1 aircraft.

Certain changes have also taken place in the Navy. The fleet of warships and patrol craft has increased by 15 units. Three submarines have been obtained from France, torpedo boats and patrol craft from China.

Currently the principal item on the agenda is new purchases in the West of a substantial quantity of modern weapons and combat equipment. The United States (in conformity with the agreement which has been reached) will in 1982 commence delivery of F-16 fighter-bombers, C-130 military transport aircraft, M60 tanks, Huey Cobra helicopter gunships, surface-to-air and antitank missiles; Great Britain is expected to provide surface-to-air missile systems, communications gear, night vision devices, tank spare parts, and France -- Mirage aircraft.

Intensifying militarization of Pakistan and increasing its military strength for aggressive purposes, the Pakistani Government has decided to establish a so-called "people's army," which will be closely linked to the regular armed forces. Toward this end, according to reports in the foreign press, a plan has been drawn up for providing mass military training to the civilian population. It is planned to form the "people's army" on the model of China's home guard. The Beijing leaders have pledged to send a large team of military advisers and specialists to Pakistan to assist in its formation.

In their militarist plans the Pakistani leaders devote attention to expanding the capabilities of military industry, which presently supplies the needs of the armed forces primarily in mortars, small arms, and some types of ammunition. In particular, plans call for producing new kinds of weapons and expanding facilities for the maintenance and overhaul of foreign combat equipment. Work is presently in progress on renovating certain enterprises which produce machineguns, carbines, automatic rifles, landmines, certain types of explosives, and various gear and equipment. Work is nearing completion of a plant for the maintenance and overhaul of Chinese T-59 tanks. Plans call for modernizing aviation enterprises in Kamra, at which French Mirage and Chinese F-6 aircraft are repaired and overhauled.

Considerable attention is also being focused on improving the general operational support structure, in particular renovation of existing and construction of new air bases, and construction of new roads.

The Zia-ul-Haq military regime is intensively pushing a nuclear research program, which is being conducted within the framework of the country's overall policy of militarization.* As is reported in the foreign press, Pakistan is already capable of producing its own nuclear fuel. Two plants with an overall capability to produce 25 kilograms of enriched uranium per year have been built for this purpose in Chasma (21 km southwest of Mianwali) and in Kahota (40 km southeast of Islamabad). Pakistan is working on designing a nuclear detonating device. According to the estimates of foreign experts, Pakistan presently possesses the equipment and technology to build an atomic bomb and is continuing research in this area.

U.S. and Chinese activities aimed at turning Pakistan into a bridgehead for carrying out an aggressive policy are heightening international tension not only on the Southern Asian subcontinent but throughout the world as well. As is stressed by the Indian newspaper PATRIOT, "Pakistan has become a component part of the strategic Sino-American alliance directed against Afghanistan, the USSR, and India."

* Pakistan has refused to sign the Nuclear Arms Nonproliferation Treaty.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON DEFENSIVE TACTICS OF U.S. GROUND FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 19-23

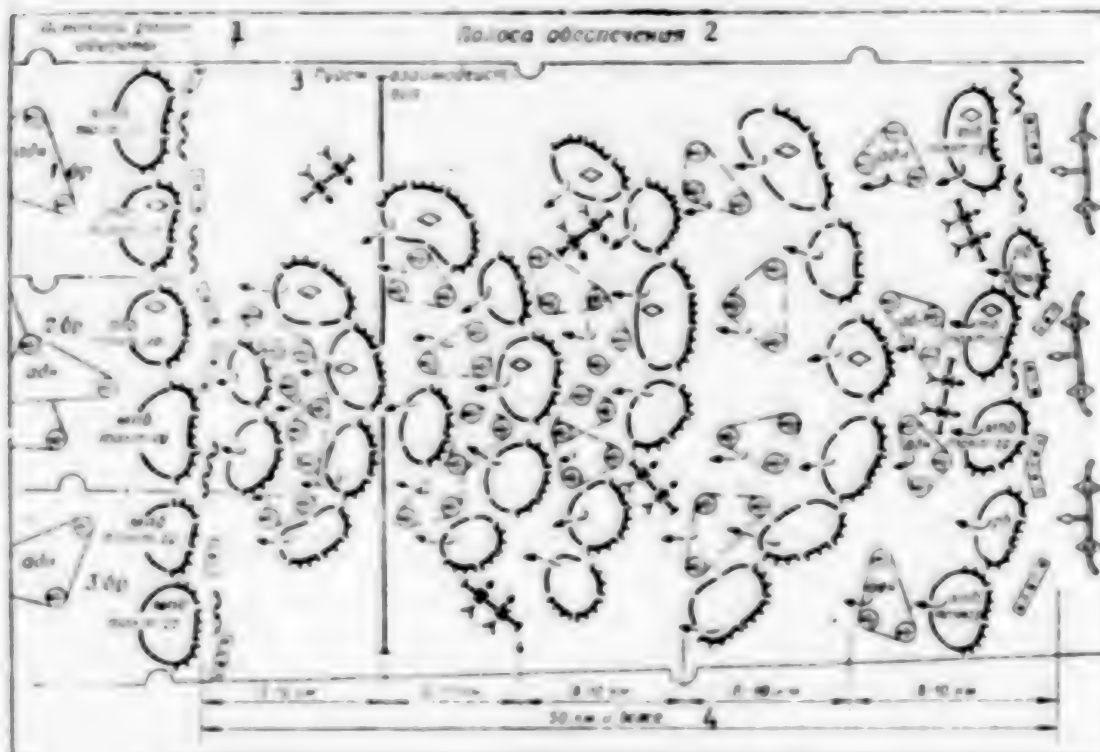
[Article by Candidate of Military Sciences Docent Col N. Tsapenko: "Combat Actions in the Security Area"]

[Text] U.S. Army command authorities view defense as one of the principal types of combat operations, which is conducted with the objective of halting and defeating in detail an advancing enemy force and creating conditions for friendly forces to shift to a determined attack. The U.S. Army generally considers the security area, the forward defensive area, and the reserve area to be the main elements of the defense. U.S. theorists describe the security area, in its literal definition, as the "area of operations of the covering force," which emphasizes the fact that the entire defended area consists of three equivalent areas, equally important for accomplishment of the overall defensive mission.

As is reported in the foreign military press, a security area is established in the absence of close contact with the enemy. It runs from the forward edge of the battle area to the line of contact with the enemy, the country's border, or an initial holding position. Its depth can range from 15 to 50 km (and sometimes more), depending on the situation. This is sufficient to enable friendly forces to determine the enemy's intentions and correspondingly to estimate the situation.

It is believed that fortification of the security area, the number of troops assigned to the covering force, and the nature of combat actions conducted in the security area depend to a considerable degree on the type of defense. U.S. military experts specify establishment of the strongest security area in a so-called "aggressive defense," which they view as the most probable type of defensive engagement in present-day conditions (see figure).

Highly mobile armored, mechanized and reconnaissance units and subunits are usually assigned to the covering force: from the corps -- an independent armored cavalry regiment; from the forward-echelon division -- a reconnaissance battalion; from each brigade -- one or two battalion task forces (most frequently tank). Thus the division area of responsibility can contain from 4 to 6 battalion task forces, each of which takes up its assigned tactical area of operation up to 8 km in frontage and up to 10 km in depth.



Actions of Covering Force in Security Area (variation)

Key:

- | | |
|------------------------------|---|
| 1. Forward defense area | адм. Artillery battalion |
| 2. Security area | мте. Motorized infantry battalion |
| 3. Coordination line | тант.бр. Task force |
| 4. 50 km or more | тб. Tank battalion |
| бр. Reconnaissance battalion | бр. Brigade |
| | обрин. Independent armored cavalry regiment |

As is noted in field manuals, the covering force is assigned the following missions: expeditiously detect the approach of the enemy force and compel the enemy to reveal his intentions and main axis of advance (this is achieved by organizing stubborn resistance to forward units and subunits, in order to force the enemy to engage his main forces); inflict casualties and equipment losses on the attacking force, determine the enemy's air defense system and, inflicting maximum damage on it, force the enemy to operate without accompanying antiaircraft defensive cover; deceive the enemy as to the actual location of the forward edge of the battle area of the forward-echelon divisions, the fighting strength, dispositions and location of the defending troops in the forward defense area; delay the enemy so that the friendly main forces have the needed time to move up, deploy, take up the defense in advantageous positions, and execute requisite maneuver.

To accomplish the assigned missions, the covering force is adequately reinforced with antitank weapons, field artillery, air defense weapons and electronic warfare gear, engineer troops, and helicopter gunships. Their actions can be supported by artillery fire from the forward defense area and by tactical airstrikes.

Field artillery is attached to the covering force, one battalion of 155 mm self-propelled howitzers to each battalion task force. In addition, battalions of 203.2 mm self-propelled howitzers, and sometimes 175 mm self-propelled guns as well (as a rule, one battalion for every three battalions of 155 mm howitzers), can be employed to reinforce the fire delivered by these howitzers. All these artillery weapons are intended for suppressing the enemy located beyond the areas of responsibility of the battalion task forces, for covering obstacle systems or delivering counterbattery fire to suppress air defense weapons.

U.S. Army field manuals recommend establishing for the duration of an engagement temporary field artillery units (brigade, for example), the subunits of which will provide fire support to the covering force. It is considered advisable to support the battalion task force with artillery of different calibers, for which so-called "composite battalions" are formed. For example, such a battalion might contain two batteries of 155 mm and one battery of 203.2 mm self-propelled howitzers.

Field artillery is deployed in the security area in such a manner that it can deliver fire on those targets which are detected by the covering force. Depending on the nature of the terrain and range of fire, gun positions are usually sited at a distance of 3-6 km from the forward edge of the initial delaying position. The same principle is applied in specifying backup artillery position areas for supporting subsequent delaying positions. Battalion batteries are sited 2-5 km from one another, and position change is as a rule carried out by turn.

Vulcan antiaircraft gun platoons from the antiaircraft battalion of a Chaparral-Vulcan division cover the security area against hostile aircraft. It is not recommended that Chaparral antiaircraft missile batteries be used in combined actions with a covering force. Up to a Vulcan antiaircraft gun battery can be assigned to the security area, distributed and operating by platoon or even by individual mounts. The principal mission of these weapons is to destroy helicopters, especially antitank helicopters, and enemy pilotless reconnaissance drones.

Tactical air is employed to provide close air support to the covering force in its area of responsibility, with up to 40 sorties per day. Tactical aircraft attack the enemy's support echelons, tank forces, air defense and electronic countermeasures facilities, guided missile launchers, artillery and mortar positions, command posts and other targets.

Devoting considerable attention to engagement of tanks and other armored targets, U.S. Army command authorities specify employment in the security area of an army corps antitank helicopter brigade. It is considered advisable to employ its subunits to reinforce the troops or to provide independent cover of the entire security area or a portion of it.

In the former instance it is as a rule attached entirely or partially to the independent armored cavalry regiment. Its antitank helicopter battalions are concentrated in the security area immediately ahead of the forward edge of the battle area or immediately behind it (in the forward defense area), close to those axes on which their employment is planned. U.S. military experts believe that with favorable flying conditions, antitank helicopter subunits increase by 50 percent the effectiveness of covering force actions.

If the security area has considerable frontage and the troops are unable to cover it fully, the antitank helicopter brigade can be assigned the mission of covering part of the security area. In some instances, and especially with a shortage of troops, it may be assigned the mission of covering practically the entire security area.

Field fortification of the security area includes construction of obstacles on possible avenues of enemy advance and in areas of probable enemy concentration and deployment, as well as digging of emplacements for personnel and weapons in the positions occupied by the covering force. It is recommended that up to two combat engineer companies up to one combat engineer platoon should be assigned to each battalion task force to give necessary assistance to covering force troops and to perform the heaviest work.

The covering force, together with combat engineer subunits, prepare and fortify delaying positions in the security area, located a distance of 8-10 km from one another. U.S. military experts believe that this distance is sufficient to slow the enemy's pace of advance, to force him to change artillery positions, and to inflict casualties and equipment losses on him. If time is available, these positions can be fortified and strengthened with various obstacles.

Covering force units and subunits take up positions on instructions from the corps commander. The battalion task forces positioned on the probable main axis of enemy advance are assigned a narrower defensive area and a large quantity of supporting forces and weapons. If it becomes clear in the course of combat that the enemy is advancing on a different axis, maneuver of subunits is specified, with the aim of establishing the requisite force grouping to offer maximum resistance to the advancing units.

Military experts believe that the duration of combat operations at each position will depend primarily on the prevailing situation and the general battle plan, although it is noted in field manuals that it shall be determined by the corps commander. The practical experience of field exercises conducted in recent years indicates that a covering force in the security area can operate for several days, successively withdrawing from its positions and harassing the advancing enemy troops. At the "Certain Sentinel" exercise, for example, held at the beginning of 1979, a corps covering force delayed the enemy for a period of 48 hours in a security area 90 kilometers in frontage.

In the opinion of experts, this duration of conduct of combat operations in the security area is essential in order to accomplish those missions assigned to a covering force and to determine the main axis of advance with a sufficient degree of accuracy.

It is recommended that combat actions in the security area be conducted aggressively and on such a manner that the adversary is forced to deploy into combat formation before enemy troops reach the forward edge of the battle area. It is advisable to disperse antitank weapons in depth in order effectively to defeat tanks and other armored targets. U.S. military experts believe that artillery and mortars firing at maximum range should deliver the first fire on the advancing enemy force. As the enemy approaches the first position of the covering force, it is considered sound to

employ antitank missiles (range up to 3,000 meters), followed by other weapons, including antitank helicopters and rocket salvo-fire systems.

When the enemy penetrates the first-position battalion defensive areas, the troops in this position withdraw to other positions. Their withdrawal is covered by artillery and mortar fire, tactical air, employment of antitank helicopters and other weapons. All this is done to force the enemy to slow his advance. Simultaneously battalion task forces maneuver to the axis on which the enemy has concentrated his main efforts. U.S. field manuals stress that a commander's skill consists in the ability to select for withdrawal that moment when the enemy has begun to establish a force grouping with the objective of defeating in detail or outflanking the defending troops and can no longer alter his decision. This moment is also considered most favorable for delivering massed attacks on the enemy.

If the situation requires delaying the advance for a specified period of time, part of the covering force (as a rule a company or battalion task force) occupies a tactically advantageous sector of terrain, installation or feature (bridge, hilltop, mountain pass, etc) and holds it, regardless of casualties. During this time the remaining troops withdraw, fighting a delaying action.

In the opinion of U.S. military experts, such a tactic forces the enemy to move up his artillery, to redeploy his troops and weapons to mount a main attack, and thus to disclose what forces he possesses and where he intends to attack.

When the covering force reaches the coordination line, located at a distance of 9-12 km from the forward edge of the battle area, it is fully resubordinated to the commanders of the forward-echelon brigades in whose defended area the fighting will be taking place, regardless of who commanded them in the course of battle.

In order to ensure unimpeded transfer of command and control at such an extremely critical moment of combat, in the opinion of U.S. Army command authorities, teamwork, cooperation and communications are organized in advance. Brigade commanders take measures to secure control by designating coordination lines, points of troop contact and passage at the forward edge of the battle area.

Subsequently, coming under the control of the forward-echelon brigades, the covering force battalion task forces proceed as instructed by the corresponding brigade commanders. They may continue to defend, to fight a delaying action, or withdraw until they lead the enemy to the troops positioned at the forward edge of the battle area.

U.S. theorists attach great importance to the matter of "transfer" of the adversary to those troops positioned in the forward defense area. One recommended method is the so-called "gradual" method, whereby the main efforts of the covering force are concentrated against that enemy force grouping which is operating on the determined main axis of advance. Simultaneously covering-force troops in a secondary sector withdraw beyond the forward edge of the battle area, enabling the forward-echelon forces, working in coordination with the withdrawn subunits, to attack the flank of the enemy main force. The objective of this maneuver is to hold the enemy, inflict casualties and equipment losses, to slow the rate of advance, and thus to create conditions for defeating the enemy in detail and shifting friendly forces to the offensive.

Another method of "handing over" the enemy consists in simultaneous withdrawal of the covering force to prior-prepared positions in the forward defense area, where they operate under the control of that commander to whom they have been resubordinated.

To ensure coordinated actions, control of the covering-force troops detailed from the corps can be handled through the headquarters of the independent armored cavalry regiment, antitank brigade headquarters, or through an agency specially designated by the corps commander for this purpose. Control of the covering-force troops from the division is organized by the division commander, located at a forward command post, or his deputy with a command group made up of headquarters staff personnel, and sometimes forward-echelon brigade commanders, but only when covering-force subunits are under their command.

U.S. military experts are of the opinion that the covering-force troop control agency should be designated in relation to the frontage and depth of the security area; its capabilities to maintain communications with the troops under its control, and the number of battalion task forces operating in the security area. Most frequently they will be personally controlled by the division commander, since he will be able from the very outset to monitor development of the engagement and to respond promptly to situation changes.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON COMBAT EMPLOYMENT OF U.S. ARMY AVIATION

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 23-26

[Article by Doctor of Military Sciences Professor Maj Gen V. Grankin: "Command and Control of U.S. Army Aviation"]

[Text] In the plans of military preparations directed primarily against the Soviet Union and the other nations of the socialist community, command authorities of the aggressive NATO bloc assign a substantial role to further increasing the combat capabilities of ground forces combined units and units. As is emphasized by foreign military experts, army aviation has today become an important component part of this branch of the armed forces; army aviation has considerably increased their mobility and combat capabilities, has made them less dependent on terrain conditions, and is considered an effective means of accomplishing various missions in the engagement and operation.

There is currently taking place a refining of views on the employment of army aviation in modern warfare, the structure of its units and subunits is being perfected, combat training is improving, and aircraft are being updated. It is noted that its principal missions will be engagement of enemy tanks, fire support of ground troops combined units and units, and participation in airmobile operations.

In the opinion of U.S. military experts, successful employment of army aviation on the battlefield is determined to a significant degree by the degree of efficiency, reliability, concealment and security of control of personnel and equipment and the degree of preciseness of organization of teamwork and coordination with ground units and subunits, artillery, air defense and tactical air. It is believed that its combat capabilities will increase sharply with stable, well organized command and control, since the number of combat sorties will increase as will the effectiveness of employment of helicopter armament.

Command and control of army aviation (AA), its teamwork and coordination with other combat arms are organized in relation to the specific combat missions and situation conditions. As is reported in the foreign press, the most important missions it will perform in modern warfare are fire support of forward-echelon units and subunits, fire support of support-echelon engagement, airlifting of assault forces behind enemy lines, engagement of tanks, participation in repulsing enemy counterattacks, tactical air reconnaissance, airlifting troops and combat equipment,

participation in airmobile operations, support of control and communications, etc. The army aviation command and control system varies somewhat in performing each of these missions, in connection with the specific features of the activities of its personnel and equipment. On the whole, however, it is a component part of the ground troops command and control system and is organized similarly to the tactical air control system, which provides for operations control and combat control.

Operations control begins long before the commencement of active combat operations, with the objective of supporting the activities of army corps, division and brigade commanders pertaining to combat employment of army aviation on the battlefield. Its agencies are AA sections serving as components of combat operations centers (COC) of main command posts (MCP) of combined-arms large units, and army aviation unit (subunit) command posts.

The tasks of these sections include the following: preparation of recommendations to commanders on distribution of army aviation efforts, determination of the character of its actions and combat formation; communication of instructions and orders to unit (subunit) commanders, organization of teamwork and coordination with ground troops and tactical air; determination of matters pertaining to flight operations safety in conjunction with tactical air control and air defense agencies.

Combat control consists essentially in command and control of helicopter flight operations in coordination with air traffic control centers, and guidance to ground installations and targets.

It is handled by the following: flight operations control centers (FOCC), which are collocated with tactical air control and warning centers (CWC); air traffic coordination centers (ATCC) are deployed in the tactical area of operations, collocated with or sited close to tactical air control and warning facilities, and in certain instances at one of its forward command posts; army aviation flight operations control teams (deployed in the vicinity of landing sites in the zone of the forward-echelon brigades and in the combat area of an assault force deep in the enemy's defenses).

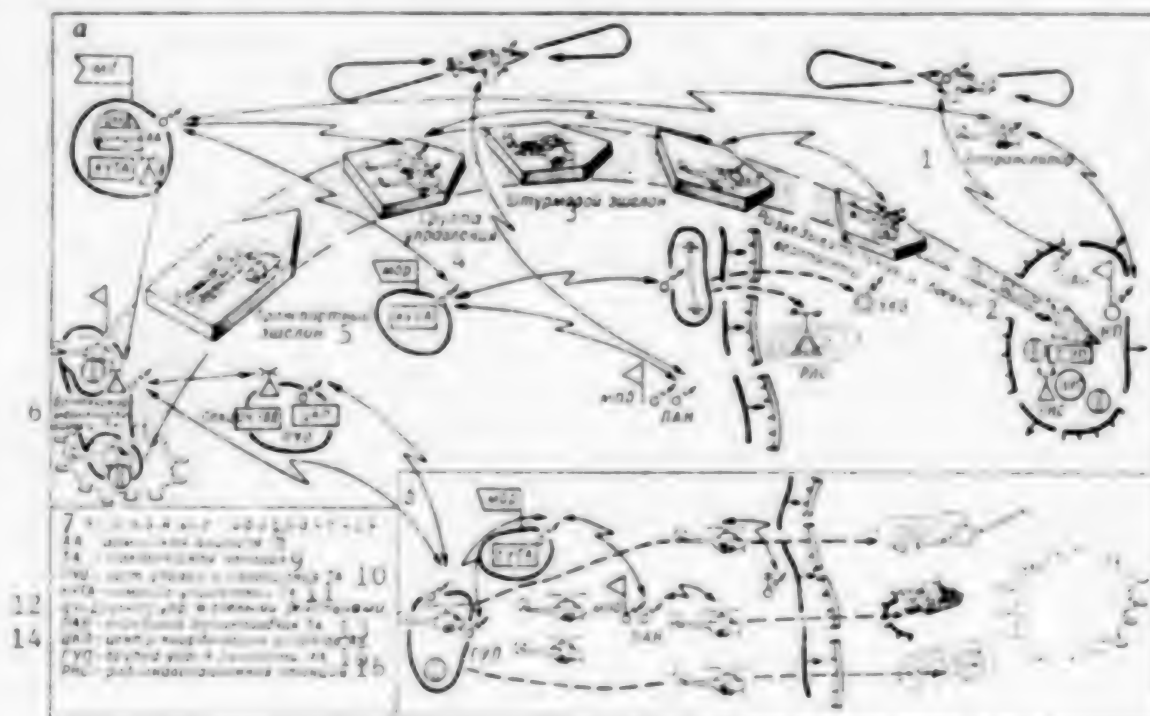
Prior to departure by helicopters from their regular bases, FOCC and ATCC alert the tactical air control and warning center and facilities. Command and control are handled by special teams sent out to ground troops units (subunits) to organize coordination and to prepare helicopter landing sites.

Radio is the principal means of communication in the army aviation command and control system. HF (2-30 MHz) and VHF (30-76 MHz) radio nets or links are set up between control and warning facilities and army aviation sections attached to COC, ATCC, FOCC, and flight operations control teams. Army aviation units and subunits set up their own radio net or link, and their radios are also elements of the radio net of the commanders of the ground troops combined units and units to which they are subordinated, attached, or in coordination with which they are operating during combat operations. These and other radio nets employ radio sets operating in the following frequency bands: 30-76 MHz (AN/ARC-111) -- communications between helicopter subunit commanders and ground forces combined unit and unit command posts, and between airborne helicopters; 116-136 MHz (AN/ARC-134) -- communications between helicopter commanders with airborne and with transport helicopter base airfields; 113-400 MHz (AN/ARC-145) -- coordination with tactical air

and air traffic control facilities, approach and landing at air traffic control service controlled fields.

Tacan or Loran radio navigation system interrogator equipment is installed on board helicopters for organization of helicopter flight operations along designated routes and in bad weather, as well as for homing to landing sites (airfields).

Army aviation control and coordination in the conduct of airmobile operations (see figure, a). In the definition given by U.S. military experts, airmobile operations are a form of combat operations whereby ground troops units and subunits are helilifted behind enemy lines for the purpose of performing their assigned missions, independently or jointly with helicopter units (subunits), other forces and equipment. En route to and in the landing area, helicopter operations are supported by reconnaissance helicopters and helicopter gunships, are provided cover and support by tactical air and field artillery.



Organization of Command and Control of Army Aviation Operating in the Interests of Ground Troops Units and Subunits (Variations): a -- in an airmobile operation; b -- in fire support

Key:

- | | |
|---|--|
| 1. Relay | 8. Army aviation |
| 2. Reconnaissance helicopters and helicopter gunships | 9. Tactical air |
| 3. Assault echelon | 10. Tactical air control and warning posts |
| 4. Command group | 11. Tactical air operations control team |
| 5. Transport echelon | 12. Combat operations center |
| 6. Army aviation battalion | 13. Forward air controller |
| 7. Legend | |

(Key to Diagram on preceding page, cont'd)

- | | |
|--|-------------------------------------|
| 14. Army aviation air traffic co-ordination center | УКВ. VHF |
| 15. Flight operations control team | Р/С. Radar |
| 16. Radio navigation station | КП. Command post |
| 17. Motorized infantry battalion | ЗС. Alternate communications center |
| 18. Mechanized brigade | Секция. Section |

Airmobile operations are conducted as a rule under the direction of the corps (division) commander, with thorough organization, stable control and close coordination. Customarily such operations are planned by combined-arms headquarters with the participation of airmobile unit commanders and representatives from cooperating and supporting arms and tactical air.

Corps (division) headquarters utilizes for command and control of an airmobile operation the control equipment and facilities of the main or forward command posts of combined units and the airborne command post (ACP) of the airmobile task force commander, at the head of the assault echelon.

During loading of the AMTF into helicopters, travel to the objective and capture of the landing area, control is accomplished with the aid of radio communications between ground control facilities -- HF radios -- and ACP -- VHF band. Connected into the HF radio net are the AA section radios of the corps (division) combat operations centers, army aviation battalion (company) command posts, AMTF commander, combined unit artillery and air defense chiefs, AMTF ground command post after landing, and the VHF net -- AA section radios of the corps (division) combat operations center, flight operations control teams, reconnaissance helicopters, airborne command posts of the AMTF commander, assault and transport echelon commanders, en-route fire support helicopters, and the tactical air representative.

The following are determined when planning airlifting of the AMTF: procedure and sequence of organization of communications, check reference points, and positioning areas of subunits with AMTF reserve, helicopter gunships in the troop pickup zones, during takeoff and en route to the objective. The following shall be specified on each route (primary and alternate): starting point, terrain check reference points, divergence points (selected at a distance of 5-8 km from the landing zone) and communications contact point (usually collocated with one of the terrain reference points).

It is believed that in order to achieve better organization of landing of the AMTF and to ensure a secure landing, it is advisable to helilift into the objective area, together with the lead group of the assault echelon, reconnaissance subunits, helicopter recovery teams, as well as teams of forward air controllers and ground artillery spotters.

The AMTF commander, landing together with the assault team, directs the actions of the AMTF, employing its ACP communications gear. He personally issues orders to the reconnaissance helicopter crews and commanders of the helicopter gunship subunits pertaining to attacking and destroying the most important targets and capture of objectives, while through the officers representing division artillery and

tactical air who are accompanying him, he organizes coordination with the artillery and tactical aircraft supporting the assault.

To ensure reliability of control, a primary and an alternate communications center are set up in the landing area, and an AMTF commander ground command post close to one of these. One or several communications relay helicopters are employed to increase stability of communications with army corps (division) command.

Coordination between an airmobile unit (subunit) and the air defense of its combined unit is achieved by establishing recognition signals as well as by designating route and time of assault force passage behind enemy lines, plus turnaround route. Future plans call for army helicopters to carry electronic identification gear.

Coordination with artillery is organized for knocking out enemy air defense hardware en route, for delivering fire on the enemy in the landing area, and fire support when the AMTF is fighting behind enemy lines. Coordination is achieved by target designation by radio from reconnaissance helicopters, by radio communication of target designation data by the AMTF commander and via the artillery officer accompanying the AMTF. Coordination with tactical air is accomplished for the conduct of reconnaissance for the benefit of the AMTF, for delivering bombing strikes on the enemy in the planned landing area, providing air cover for the AMTF en route and during landing behind enemy lines. It is provided by various means, including by radio via the forward air controller accompanying the AMTF.

The army corps (division) commander exercises control and coordination between army aviation and ground troops units and subunits during fire support (see figure, b) via the army aviation sections at COC and the helicopter unit and subunit commanders. On the basis of information provided by these sections, the corps (division) commander distributes assets between ground troops combined units and units, while in case of massive employment of army aviation, the bulk remains subordinate to the combined unit commander. Ground troops unit or subunit commanders assign specific missions to the helicopter subunits attached to the units. According to reports in the foreign military press, for example, at the U.S. Armed Forces "Reforger-78" fall exercise, army aviation of U.S. Army divisions was attached by company to forward-echelon motorized infantry (armored) brigades, while army aviation platoons operated jointly with motorized infantry (tank) battalions. There were special teams in the brigade zones of responsibility, designated from the division army aviation subunits. They prepared landing sites, received helicopter gunships and troop-carrying helicopters, and handled refueling and rearming.

Helicopter company (platoon) commanders established radio communications with the brigade (battalion, company) commanders and special team leaders, coordinating target designation and mutual recognition and identification signals. Considerable importance was attached to reconnoitering terrain and approach routes in enemy force groupings. It was considered advisable that commanders of helicopter subunits personally fly reconnaissance missions and determine for the helicopters routes of concealed approach to the target and modes of effective target attack and destruction. The commanders maintained radio communications by putting their radios (AS/ABC-131) into the radio nets of the motorized infantry (armored) brigade and battalion commanders. When there were forward air controllers in the ground troops subunits, radio communications were also established with them by AS/ABC-145 radios, with the aid of which helicopters were guided to objectives and targets.

Intelligence would be transmitted by radio to the army aviation battalion commander and coordinated with the Air Force flight operations control center and combined unit air defense entities. After this, helicopter subunits would depart for the objective area with the mission of supporting the combat actions of the ground troops units and subunits. It was noted that helicopter crews "knocked out" tanks, armored personnel carriers, infantry fighting vehicles and self-propelled guns at the exercise in hovering mode, from a range of 3,000-3,500 m.

U.S. Army command authorities believe that the course and outcome of an engagement or operation depend to a significant degree on how correctly and efficiently matters of command and control of army aviation operating in support of ground troops are handled.

COMMENT: "Izvestiye voyennoye obzoraniye", 1981

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON USE OF PILOTLESS AIRCRAFT BY NATO GROUND FORCES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 27-31

[Article by Candidate of Technical Sciences Col (Ret) I. Romanovskiy: "Ground Forces Pilotless Reconnaissance Aircraft"]

[Text] U.S. military leaders and those of other countries of the aggressive NATO bloc, continuing to increase the combat power of their ground forces, are devoting considerable attention to development of technical means of conducting air reconnaissance. In the opinion of Western experts, in present-day conditions of conduct of warfare, characterized by a high level of troop mobility, air reconnaissance, which supports the successful conduct of combat operations, plays a much more important role. In recent years ground forces have been employing pilotless aircraft for this purpose. It is noted in the foreign press that development of this type of aircraft was dictated by increased effectiveness of air defense weapons.

Pilotless aircraft, as is indicated by the results of investigations and tests conducted by foreign experts, possess the following advantages over piloted aircraft: low cost, and no casualties. It is believed that the small size of pilotless aircraft reduced radar reflecting surface, low noise and heat radiation level give such vehicles a high degree of battlefield survivability and make it quite difficult to combat them. In the opinion of foreign military experts, pilotless aircraft are intended primarily for performing missions (including reconnaissance) in hostile airspace defended by strong air defense. It is assumed that they will supplement, not replace manned aircraft.

Remote-piloted aircraft, in contrast to flight-programmed vehicles, can respond to situation change and, what is particularly important, can transmit intelligence to a ground post on a real-time basis (or close to it). This circumstance, in the opinion of foreign experts, is extremely important in the conduct of reconnaissance in support of ground forces, when its targets as a rule are mobile. At the same time they point out such a drawback of remote control as its vulnerability to hostile jamming. Considerable attention is being devoted to finding a solution to this problem in developing military remote-piloted vehicles in capitalist countries.

As is noted in the foreign press, ground forces command authorities in the member nations of the NATO military bloc assign the following missions to pilotless reconnaissance vehicles: detection and location of the enemy's air defense system

and its signal-radiating facilities; determination of aircraft basing locations, locations of defensive installations, troop concentrations, etc. In the opinion of foreign experts, special attention will be devoted to battlefield reconnaissance immediately prior to mounting attacks, in order to refine prior obtained intelligence on the combat formations of enemy troops, results of actions by air, missile troops and artillery, to discover and determine terrain peculiarities, and to conduct final reconnaissance of amphibious landing and river-crossing areas.

Targets of air reconnaissance conducted by ground forces with the aid of pilotless vehicles can include tank and mechanized columns, missile launcher and artillery positions, air defense weapons, command and observation posts, rail junctions, supply depots, tactical airfields, and defensive installations. In addition to detecting ground targets and determining their coordinates, some pilotless reconnaissance vehicles are assigned target illumination (target designation) and fire adjustment missions.

Pilotless reconnaissance aircraft carry panoramic aerial cameras, zoom-lens TV cameras, infrared detection gear, radar reconnaissance equipment, as well as laser rangefinders-target designators for illuminating ground targets engaged by homing-type guided missiles.

Foreign experts believe that the present level of advance in the area of radio electronics makes it possible to develop lightweight, small airborne equipment, as a result of which it is becoming possible to build and efficiently utilize comparatively simple and inexpensive small pilotless reconnaissance vehicles. The British firm Marconi-Elliott, for example, has developed for the Wisp rotary-wing pilotless reconnaissance vehicle an airborne TV camera which weighs only 0.11 kg. It is noted that its sensitivity under conditions of daylight illumination is an order of magnitude greater than that of existing equipment. It has been reported in the Western press that a requirement which must be met by an American TV camera designed for a small pilotless reconnaissance vehicle is that there should be a 50 percent probability of tank detection at a range of approximately 2 km.

Panoramic cameras, carrying an adequate film supply, carried on board pilotless aircraft can conduct aerial reconnaissance in conditions of normal visibility. Infrared airborne reconnaissance equipment being developed is intended to increase possibilities to detect reconnaissance targets at night and in adverse weather.

Foreign pilotless reconnaissance vehicles are classified by vehicle type as fixed-wing and rotary-wing vehicles, and by employed control system into programmed and remote control. The type designation of a pilotless vehicle determines its specific structure and basic performance characteristics.

The operating range of vehicles with a radio-command control system depends on line-of-sight range, and consequently on control facility antenna height and flight altitude. With an antenna height of 3 meters and remote-control vehicle height above ground of 300 and 900 meters, maximum operating radius (under control) will be 80 and 100 km respectively.

The altitude for tactical reconnaissance pilotless aircraft depends on their specific designation. Vehicles employed to determine the coordinates of and

illuminate ground targets in standing patrol mode have the greatest duration of flight. In these instances pilotless fixed-wing aircraft can remain in the air from 3 to 4 hours, and 24 hours for tethered rotary-wing vehicles.

Fixed-wing pilotless vehicles are brought back and retrieved by parachute or by catching the gliding vehicle in a net set up at the end of the descent trajectory. Rotary-wing pilotless vehicles do not need special retrieval devices and in this regard, in the opinion of foreign experts, are more convenient to employ.

As is noted in the foreign press, at the present time the ground forces of the principal NATO member nations possess and are developing a number of pilotless reconnaissance vehicles (see table) [not reproduced]. Ancillary equipment employed in operating pilotless vehicles (carried on military trucks) includes, in particular, radio command equipment, intelligence collection gear, launchers, retrieval system, servicing and maintenance equipment. The personnel complement of such subunits is 10-12 men.

Since the mid-1970's the ground forces of Great Britain, the FRG, France and Canada have been using the CL-89 pilotless vehicle with preset guidance (AN/USD-501, Figure 1) [not reproduced]. It is of a canard design, with an unswept cruciform wing, and powered by a turbojet motor. Intelligence gathering equipment, contained in a removable unit, includes an aerial camera or infrared sensing unit. The former can photograph from a height of 300 meters a strip of terrain 1.8 km wide and 16.5 km long. Film cartridges are used for night photography (12 units). The vehicle is launched from a mobile ground launcher and lands with the aid of a parachute system and shock absorbing device.

Flight tests are presently being conducted on experimental models of a modified version of this vehicle, designated the CL-289 (AN/USD-501), developed by Canada, the FRG, and France. In contrast to the CL-89, it is designed for performing reconnaissance missions not for the division but for the corps. It therefore has an extended operational radius and increased payload, as well as greater navigational accuracy. More sophisticated equipment is carried by the vehicle for night reconnaissance, equipment with real-time data transmission capability. Intelligence can be transmitted from the CL-289 to a command post, where it is processed comparatively rapidly. Materials published in the foreign press indicate that NATO blue leaders plan to adopt the CL-289 pilotless vehicle in coming years.

The FRG and Great Britain are devoting attention to the development of rotary-wing pilotless reconnaissance vehicles, including tethered. One of the features of the latter, in the opinion of experts from these countries, is a high degree of jamming resistance, due to employing a cable communications line from the vehicle. In addition, they are comparatively reliable and simple to operate and maintain. One example of a vehicle of this type is the Klabit tethered rotary-wing vehicle (Figure 2), developed by the West German firm of Dornier. It is equipped with a French-built Orphée radar and electronic intelligence gathering equipment. This self-contained radar battlefield surveillance system, designated Armin, is intended to be used at the division level. It is supposed to be capable of recording the movement of enemy combat vehicles and of determining the coordinates of hostile radio-emission installations. The Klabit rotary-wing vehicle can carry a payload of about 140 kg to a height of up to 320 meters and can conduct continuous

surveillance for a period of 24 hours. Commands are fed to it from a truck-mounted operator's cab. The Argus reconnaissance system is scheduled to become operational in the FRG ground forces in the first half of the 1980's.

In Great Britain work is in the completion stages on the development and flight testing of radio-controlled rotary-wing reconnaissance vehicles, also to be used by ground forces as a tactical means of conducting reconnaissance and surveillance. The intelligence gathering equipment carried by the Wisp pilotless miniature helicopter (Figure 3) [not reproduced], built by the British firm of Westland, consists of a television camera with a variable focal-length lens. Intelligence is transmitted by radio channel on a real-time basis. A new pilotless miniature helicopter, the Wideeye (the principal component of the Supervisor reconnaissance system), has been developed to conduct reconnaissance day and night, for the division and corps, to a depth of up to 50 km, a vehicle developed under contract with the British Army. Flight testing of experimental models is presently in the concluding stages.

Army corps reconnaissance regiments in the French Army are equipped with R-20 pilotless reconnaissance vehicles. Equipment carried on board this pilotless vehicle can photograph from a height of 800 meters a strip of terrain 2.3 km wide and 50 km long.

In Belgium's ground forces, an army corps contains 2 platoons of Épervier unmanned reconnaissance vehicles (each with two launchers and 20 pilotless vehicles). An Épervier vehicle can photograph a strip of terrain 6 km wide and 15 km long.

It is noted in the foreign press that advances in radio electronics and employment of new structural materials have recently enabled foreign experts to develop new types of pilotless vehicles, which are smaller in size and lighter in weight than earlier models. It is emphasized that these small remote-control fixed-wing vehicles, possessing a low level of radar reflectivity and noise level, are little vulnerable to air defense fire and therefore, costing little to build and operate, are an efficient means of conducting air reconnaissance. A typical example is the small vehicle being developed for the U.S. Army by Lockheed, based on the Aquila experimental pilotless mini-vehicle (Figure 4) [not reproduced]. Its intended missions include battlefield surveillance, conduct of reconnaissance, artillery fire adjustment, as well as laser illumination of ground targets engaged by homing-guidance projectiles.

This vehicle can operate over enemy territory to a depth of up to 150 km. Airborne equipment, which is carried in a payload unit weighing 14 kilograms, includes a television camera, a laser rangefinder-target designator and airborne computer, which processes information. In a night version the television camera will be replaced by a forward-scanning infrared system. The Aquila pilotless reconnaissance vehicle is of a tailless, swept-wing design. It is powered by a piston motor with a pusher propeller enclosed in an annular casing. The airframe is fabricated of the composite material Kevlar.

The system (carried on board seven standard army trucks) includes the following: launchers, control station, returning-vehicle retrieval equipment, power supply, etc. It is served by a 10-man crew. It takes about 1 hour to ready the vehicle for

launching (from the moment the equipment reaches the launch site), while it takes about 30 minutes to take things down for moving to a new site.

The contract awarded to Lockheed by the U.S. Department of the Army calls for building and testing 22 pilotless reconnaissance vehicles, 4 control stations, 3 launchers and other requisite equipment. The decision to go into production with this reconnaissance system and put it on operational status will be made on the basis of the results of testing, which is to be completed in 1983.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON NEW U.S. BINOCULAR-MOUNTED RADIO SET

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 31-33

[Article by Engr-Col V. Afinov: "Radio Set in Binoculars"]

[Text] It is noted in the foreign press that as the technology of electronic warfare has advanced, battlefield radio communications have become increasingly more vulnerable. Today the enemy, intercepting radio traffic, is capable not only of learning the content of messages but also of discovering the location of the subunit from which the radio is transmitting. In addition, the enemy can suddenly and unexpectedly, at a critical moment in battle, disrupt subunit control by suppressing its radio communications.

In view of the above circumstances, U.S. experts are seeking new means and modes of radio communication which in their opinion ensure superiority on the airwaves in conditions of extensive employment of electronic warfare means by the opposing sides. In connection with this they believe that radio sets operating in the millimeter band are one direction in the development of military radio communications dictated by the demands of electronic warfare. The U.S. firm TRW, on a contract with the Defense Advanced Research Projects Agency, has developed an experimental model of a radio set housed in a pair of binoculars.

According to reports in the foreign press, this radio set is presently undergoing comprehensive testing. It operates at a fixed frequency of about 4 mm, which makes it possible to concentrate electromagnetic radiation in a beam corresponding to the field of an 8-power binocular. One side of the binoculars contains an optical system, while the other houses a lens antenna and almost all the radio components (Figure 1) [not reproduced]. The remaining components include a headset with microphone, as well as a battery power supply carried in a shoulder-slung pouch.

Communications are line-of-sight, in telephone mode with frequency modulation, or in digital communications mode with frequency pulse-code modulation. To establish communications, the radio operator brings the binocular cross hairs onto his target (the axis of the transmitter and antenna radiation pattern is parallel to the optical axis) and holds the communication target in his field of view. The receive-transmit key and all other radio set controls are mounted on the binocular housing. Its specifications and performance characteristics are as follows.

Operating range, km:	
in clear weather	7
during rain (intensity 4 mm/h)	3
Operating frequency, GHz	70
Binocular field, degrees	7.5
Width of antenna radiation pattern, degrees	6.2
Antenna polarization	linear
Maximum radiated power, mw	10
Receiver bandwidth, kHz	
in telephone mode	150
in digital transmission mode	64
Receiver signal-to-noise ratio, db	20
Battery power supply continuous operation, hours	9
Maximum allowable temperature fluctuation at transmission and receiving points, °C	0-50

The dielectric (polyethylene) lens antenna is 5 cm in diameter. It has a gain of 29 db at a side lobe level of 26.5 db.

According to its developers, the radio set's key element is the millimeter-band receiver-transmitter integrated circuit with a Gunn diode oscillator. On receive it operates as a "self-exciting mixer," that is, simultaneously performs the functions of receiver mixer and local oscillator. On transmit the circuit is an electronically-controlled high-frequency oscillator. This integrated circuit is connected to the antenna by a short lightguide of boron nitride (attenuation 6×10^{-3} db at a distance of 1 wavelength, dielectric constant 4). Frequency modulation is achieved by varying the current applied to the circuit from the modulator. Frequency deviations of 100 MHz correspond to a change in voltage of from 2.5 to 2.85 V. Fluctuations in radiated power do not exceed ± 0.2 db.

As is reported in the foreign press, the receiving-transmitting integrated circuit, which was developed taking into account various practical applications in millimeter-band equipment, was tested in a frequency band of 45-75 GHz in conditions of a substantial ambient temperature differential. Maximum transmitting power (63 mw) was obtained at a frequency of 48 GHz. The maximum conversion factor on receive was 4.3 db, and the signal-to-noise ratio was 15 db. In the frequency band 60-61 GHz, power fluctuations caused by temperature change did not exceed 3 db (0.06 db/degree). Temperature frequency drift averaged 2-3 MHz/deg. Elimination of frequency drift was an essential requirement in designing this radio set, since otherwise, U.S. experts believe, difference in the ambient temperatures at the transmitting and receiving point would cause a frequency difference which would destroy communications between them.

In order to simplify the radio's design, the designers decided against thermostatic control of the Gunn diode, essential for stabilizing its frequency. In receive mode the set automatically tunes to the transmission signal within a frequency range of not less than 100 MHz. The receiver, which employs triple frequency conversion (two broadband amplifiers with a gain of 30 and 15 db operate at the first intermediate frequency), has a second (scan) oscillator with a scanning frequency of 125-350 MHz. A frequency discriminator operates at the third intermediate frequency (10.7 MHz), ensuring precise tuning to the frequency of the transmitting station and

stopping retuning of the second oscillator. The operator is informed of this by a red indicator lamp which comes on (a green lamp is on during signal search).

According to reports in the foreign press, during field tactical testing of experimental models of this radio set, communications were established at a range of about 2 km. The binoculars were aimed at one another both with the aid of a tripod and manually (Figure 2) [not reproduced].

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON NATO CAPABILITIES FOR NIGHT AERIAL RECONNAISSANCE

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 39-42

[Article by Engr-Col (Ret) L. Safronov, candidate of technical sciences, docent: "Night Aerial Reconnaissance"]

[Text] In the view of NATO military experts, in contemporary wars such troop activities as transportation, position change, bridge spanning, conduct of camouflage and concealment activities, repair and rebuilding, etc, will be conducted increasingly more intensively during hours of darkness. In conformity with this, there is observed in a number of NATO member countries a trend toward development of means and methods of conduct of night tactical air reconnaissance.

As is noted in the foreign press, fixed-wing and rotary-wing reconnaissance aircraft, both those which are currently operational and those which are in development, contain diversified intelligence gathering equipment designed for night operations, or are being equipped with such gear. At the present time the most common types of such equipment include aerial photography equipment (aerial cameras and terrain illumination sources), passive infrared sensing devices, and highly-sensitive radar and television equipment.

The foreign press emphasizes that many of the aerial cameras used by the air forces of the NATO member nations are general-purpose, that is, can be used both day and night. As a rule they contain optics with a large aperture ratio (1:2-1:3.5) and short focal length (7-15 cm), small film format (5.7 x 5.7 - 11.4 x 11.4 cm), and fairly high resolution (70 lines/mm or more, depending on the film used).

On the majority of organic, that is, specially designed for aerial reconnaissance, aircraft such as the RF-4C, RF-5E, Mirage-3R, and several others, aerial cameras are mounted as a rule in the nose (figures 1 and 2) [not reproduced], while on tactical fighters assigned to this mission, containers carrying various intelligence gathering gear, including aerial cameras, are external-mounted.

Photographic flash bombs are used to illuminate terrain when photographing at night from high altitudes (6,000-12,000 m). These bombs produce a brief (0.18-0.25 sec) flash of light with a peak intensity of $5-7 \times 10^9$ kd.

As Western military experts note, however, these bombs are rather large (150 pounds or more), and therefore the number which can be carried by a reconnaissance aircraft is quite limited, and consequently the number of aerial photographs is correspondingly limited. In addition, night photography with an aerial camera and photographic flash bombs from these altitudes requires ideal weather conditions and the absence of strong hostile air defense countermeasures, a situation which will not occur in the European theaters, in the opinion of NATO experts.

Special small (weighing 0.5-1.8 kg) photographic rockets (frequently abbreviated to photorockets) have been developed abroad for night photography from medium and low altitudes. These rockets are fired from special clusters containing up to 200 rockets. Depending on the altitude of the reconnaissance aircraft and the size of the photographic object, as many as seven photo rockets can be fired simultaneously (a light flash occurs approximately one second after firing, flash duration is 0.03-0.04 sec, and peak intensity is $120-265 \times 10^6$ kd).

Terrain illumination when photographing from heights of 150-500 meters, at high airspeeds, can be accomplished with the aid of electric illumination units mounted on board the reconnaissance aircraft, which generate light pulses at a frequency of from one to six flashes per second. Such a unit can contain several flash lamps positioned in conical reflectors, which direct the light in a fan-shaped pattern and parallel to the optical axes of the aerial cameras. The KS-126A system (consisting of a high-speed camera with rotating prism head and electronic light amplifying device), for example, can photograph three overlapping strips of terrain with an overall route-width coverage angle of 120° .

According to reports in the foreign press, the United States has recently developed and adopted several night photography systems in which terrain illumination is accomplished by scanning laser beam.

Passive infrared devices are extensively employed abroad for conduct of night air reconnaissance. The majority of these devices operate in the 8-14 micrometer band, with a temperature sensitivity of $0.5-0.1^\circ\text{C}$, lateral terrain coverage angle of 120° , and altitude range of employment 60-3,000 m. The terrain and object imagery obtained with such equipment can be reproduced on a CRT screen recorded on photographic film or magnetic tape, while when amplified and converted to digital form it can be transmitted by radio channel to ground facilities.

Side-viewing radars, which can perform terrain surveillance to distances of 20-80 km on both sides of an aircraft's flight path (their resolution is 10-30 m, employment height above ground level 3,000-12,000 m), are carried on modern reconnaissance aircraft to conduct night aerial reconnaissance in adverse weather conditions.

NATO-fixed-wing and rotary-wing reconnaissance aircraft, in addition to the above-mentioned equipment, can employ TV units providing the capability to conduct terrain surveillance at levels of illumination provided the moon and starry sky. The TV terrain image obtained with this equipment is displayed on an airborne display unit and can simultaneously be transmitted to ground information collection and processing facilities.

In the opinion of foreign military experts, successful resolution of the problems of air reconnaissance as a whole, and especially night reconnaissance, is possible with

the combined utilization of diversified means and methods. Proceeding from this, reconnaissance aircraft and even tactical fighters and other combat aircraft assigned to perform the aerial reconnaissance mission are as a rule outfitted with several devices -- differing in operating principle and possessing differing specifications and performance characteristics. For example, containers housing forward-looking infrared surveillance units, infrared intelligence gathering equipment with line scanning, and F-95 cameras are externally mounted on Jaguar-GRI fighter-bombers (Figure 3) [not reproduced] of the British Air Force's 11th Squadron, stationed in the FRG (in addition to missions involving delivery of strikes on ground targets, this squadron is also assigned the conduct of air reconnaissance).

Today, in addition to the conduct of night aerial reconnaissance with the aid of diversified technical devices, the technique of visual observation is also employed, a technique which, in the opinion of many NATO experts, will continue to retain importance in the future. This is due to its flexibility and maximum speed of information acquisition. Highly-sensitive electro-optical devices are employed to increase the capabilities of night visual observation, devices in the form of special electronic spectacles (for example, the AN/PVC-5) or sights (AN/PAS-7), which make it possible clearly to make out in the darkness, from low altitudes, paved and unpaved roads and vehicles traveling on them, as well as campfires, small rivers, streams, and various objects on the terrain.

In some instances, as was noted in the Western press, illuminating aircraft bombs and flares can be employed. As a rule they are released (fired) by an aircraft (helicopter) specially assigned to this mission, while the crews of reconnaissance aircraft (helicopters) observe the illuminated terrain -- reconnoitering objects on that terrain. One such flare weighs 30 kilograms, has a light intensity of 5×10^6 kd, and has a 3 minute duration of illumination. According to reports in the foreign press, a single container mounted on a C-130 Hercules military transport contains 200 such flares, which are released automatically at preselected time intervals.

In addition to flares, electrical illumination systems have been developed. In particular, one such system (mounted on helicopters) consists of three arrays, each of which contains 28 powerful electric lamps powered by the helicopter's electric power system. This system, employed by a reconnaissance helicopter flying at a height of 900 meters, is capable of throwing onto the terrain a circular illuminated area more than 1,000 meters in diameter, with the level of illumination 6 times that of sunlight at midday.

In the opinion of NATO military experts, the above mentioned devices will make it possible, in spite of certain difficulties, successfully to conduct night aerial reconnaissance and thus to provide interested air force and ground forces command and control agencies with requisite information on the enemy.

Recently the U.S. Air Force has developed the idea of combined employment of night reconnaissance and strike aircraft, in conformity with which the following sequence of actions by the crew of the reconnaissance aircraft is specified. The nature of the target and its probable location are thoroughly studied on the ground, after which the target is searched out and its precise coordinates determined; then strike aircraft are called to a prior specified rendezvous area or directly to the target

area. The reconnaissance aircraft illuminates (designates) the target with available airborne devices (laser target designator, parachute flare, etc), and following attack checks strike results by means of visual observation and photography. In many instances the reconnaissance aircraft, if it carries suitable weapons, can independently attack targets it has reconnoitered.

As follows from information published in the foreign press on the actions of tactical reconnaissance aircraft of capitalist countries in so-called local wars and exercises, usually a two-aircraft flight is assigned to air reconnaissance; they reconnoiter up to four or five targets on a single mission. In some instances their missions are supported by special electronic countermeasures aircraft to jam enemy air defense equipment. The PLSS system and aircraft equipped with the Wild Weasel system will be employed at night for reconnaissance and suppression of radio-emitting ground targets (radars, radio transmitters, etc).

According to the calculations of NATO experts, the number of night aerial reconnaissance sorties during certain periods of combat operations may amount to as much as 40 percent of total allocated air reconnaissance assets. In addition, in their opinion ground forces air assets (fixed-wing aircraft, helicopters, pilotless vehicles, etc) will be extensively employed for the conduct of night air reconnaissance, especially for battlefield surveillance and observation of adjacent sectors of the tactical area of operations.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON U.S. FIGHTER AIRCRAFT DEVELOPMENT

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 43-47

[Article by Candidate of Technical Sciences Col Yu. Alekseyev: "Future American Fighters"]

[Excerpts] Fighter aircraft are one of the most rapidly evolving types of military hardware, to which the Pentagon is assigning an important role in its aggressive schemes directed toward preparations for another war. Judging from reports in the foreign press, more than 10 U.S. Air Force special laboratories and scientific research centers are working on development of future fighters (their annual budget totaled approximately 1.1 billion dollars over the last several years), plus a number of scientific organizations of the Navy, Army, NASA, as well as leading U.S. aircraft companies such as General Dynamics, McDonnell Douglas, Grumman, Rockwell International, Lockheed, Boeing, and others.

In the opinion of U.S. military experts, latest advances in the area of aviation technology should be considered in designing new aircraft. It is believed that the employment of so-called third and fourth generation composite materials, promising metals and alloys will make it possible radically to improve the design and construction of fighters. The modular principle of design and employment of axisymmetric nozzles (which provide coupling with the airframe, thrust-vector control, and thrust reverse), as well as turbines with variable-geometry blading and higher operating temperatures will experience further development in powerplant engineering. The thermal stability of fuels is to be increased, in order to provide capability of extended missions at high supersonic and hypersonic speeds, as well as the development of new fuels, including relatively inexpensive synthetic fuels from fuel shales.

Aeronautical engineers are studying the possibilities of employing on fighters a wing with computer-controlled camber and twist, supercritical profile or combined shape in plan view (subsonic, transonic, and supersonic), as well as aeroelastic joining surfaces. Engine air intake design, for example, would incorporate materials and coatings capable of absorbing or attenuating radio waves. Cockpits should be equipped with the most advanced ejection and survival systems, and should provide the aircrew with the capability of withstanding high G-loads. One area of research involves development of general-purpose exterior weapon mounts, optimized according to the "weight/drag/volume" criterion.

At the beginning of the 1980's a number of basic research and development projects were carried out for the Air Force, one of the important tasks of which, in the opinion of U.S. experts, was to shorten the time required to design and build new models of aircraft, which has averaged 13 years (basic research -- 2 years; experimental research -- 3 years; experimental design -- 5 years; bringing into production -- 3 years).

Among the various future fighter development projects which are at the stage of design evaluation, the foreign press notes aircraft with a supersonic cruising speed, as well as subsonic and STOL fighters.

Judging by reports in the Western press, U.S. Air Force command authorities presently intend to speed up the development of the future fighter. With this aim in mind, at the beginning of the 1982 fiscal year the Air Force was planning to request from industry basic-concept studies for developing such an aircraft and to enlist 9 leading U.S. aircraft companies to perform such studies. Subsequent stages of the project will be the following: selection of from 5 to 7 companies for initial design, and subsequently 2 or 3 companies to build demonstration models and to flight-test them. Final selection of the company to build the aircraft and commencement of full-scale development of the new fighter are scheduled for the 1987 fiscal year. It is anticipated that the Air Force will begin taking delivery on the new aircraft in the mid-1990's. It is also reported that the Pentagon requested 10.3 million dollars for the 1982 fiscal year for conducting these basic studies, with planned expenditures of 25 million in 1983 and 315 million up to 1987.

In the opinion of foreign experts, prior to commencing conceptual studies, the U.S. Air Force must determine whether to build a multirole fighter or develop aircraft of two types -- an air superiority fighter, and a strike aircraft to attack ground targets. It is noted in the foreign press that combined studies are already being financed at the present time: with Boeing and Grumman on development of a tactical fighter, and with McDonnell Douglas and General Dynamics on an air superiority fighter. Extreme versions are being analyzed: from aircraft designed to penetrate air defense at high and low altitudes and at supersonic cruising speeds, to hard-to-detect (so-called "stealth") aircraft.

The scope, intensity and number of designs of prospective U.S. fighters, which substantially exceed corresponding figures in the area of development of fighters of preceding generations, attest to the endeavor on the part of U.S. militarist circles to achieve a further increase in efforts to develop new aircraft.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON AUTOMATED CONTROL SYSTEMS IN THE U.S. AIR FORCE

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 47-51

[Article by Docent Col Yu. Omel'chenko, candidate of military sciences, and Engr-Lt Col B. Babayev: "Automation of Control At Air-Force Headquarters"]

[Text] Conduct of an aggressive foreign policy engenders on the part of U.S. imperialist circles and their NATO allies a constant endeavor to increase the might of their armed forces and the effectiveness of their combat employment. Unrelenting attention is being devoted to problems of further improving command and control agencies since, as is noted in the foreign press, insufficient efficiency and flexibility of command and control agencies can cause failures in employment of the most modern weapons systems.

In the view of U.S. military experts, control includes the continuous process of gathering of information on manpower and weapons (friendly and hostile), processing and evaluation of this information with the objective of appropriate distribution of manpower and equipment for carrying out a combat mission, as well as verification of execution (Figure 1) [not reproduced]. It is believed that flows of information, quite substantial in volume, should be rapidly converted into a convenient form for assimilation by commanders and their control agencies, should be continuously compared and submitted to users with a differing degree of completeness and in different combinations.

All measures to improve efficiency and effectiveness of air forces control are based on the adoption of electronic computer hardware and other means of automation. For example, with utilization of electronic computers it became possible rapidly to process large volumes of information at air traffic control facilities, in radar and navigation systems, as well as approach and landing, communications and other systems. Subsequently an effective role began to be played by computer systems designed specifically for automating processes connected with headquarters staff operations.

As is reported in the foreign press, the U.S. Air Force is presently operating or developing more than 80 automated control systems (ACS) of various function, the largest of which are the following: the 465L Strategic Air Command automated control system; the 473L -- a system for control and management of Air Force personnel, equipment and facilities; the 207L and its updated version, the 385L -- a system to control tactical aviation; the 425L, 416L and 416M -- an air defense control system.

One example of an improved ACS, according to the foreign press, is the 473L, which is designed for collection, processing, storage and updating of information received from the headquarters of air-force commands located in the continental United States and overseas, as well as display and printout at Air Force headquarters of data required for situation estimation and decision-making. As is noted by foreign experts, with this system one can select optimal variants of employment of manpower and equipment, as well as communicate orders and instructions to subordinate echelons and receive reports from them in an automated fashion.

U.S. Air Force combined unit and unit headquarters ACS are used chiefly for drawing up particular operation orders for employment of men and equipment or for revising previously issued orders. Data files are used for this purpose, which include indices of combat capabilities of aircraft and their armament, position coordinates of bases, number of aircraft and time characteristics of their combat readiness, data on strike targets, the enemy's air defense system, etc. Data are also generated on optimal aircraft employment variants under specified conditions.

Judging from reports in the foreign press, the leading trend in development of air-force automated command and control systems consists in expanding the operational capabilities of ACS at all echelons of command by means of maximum employment of operation in real-time mode, and development of advanced software, making it possible to simplify the process of command and control of air-force personnel, equipment and facilities by reducing the large number of problems facing each component to solving a minimum number of standard, formalized problems.

For example, the ATCC (Advanced Tactical Command and Control) system is presently being developed. It should provide commanders and staffs at all echelons of the Tactical Air Command (TAC) with data on the enemy on close to a real-time basis, generate recommendations for planning, revising plans, coordination of tasks, and control of manpower and equipment right down to the individual aircraft. It is anticipated that this system will make it possible maximally to centralize command and control, linking into a unified network TAC headquarters and the headquarters of combined units and units. This would ensure identicalness in situation display and perception at all levels, as well as a high degree of efficiency in decision-making and execution.

Similar characteristics are possessed by the 415L system, which is intended for comprehensive data processing for the Military Airlift Command (MAC). Its principal component is a computer center with three computers located at Scott Air Force Base (in Illinois). Input/output and data display terminals are being installed at all other MAC bases in the continental United States, with the aid of which personnel at distant locations can use the main computer center for solving their problems. It is planned subsequently to include overseas bases in this system, for which an additional one computer each will be installed at electronic data processing centers located at air bases in the Atlantic and Pacific areas, and input/output and data display terminals at other bases in these areas.

Expansion of the area of coverage of automated command and control systems to large regions of the world, right up to global scale, and incorporation of computers at all echelons of command and control, with a simultaneous increase in computer operating speed, are based on the latest advances in the area of development of computer

hardware and data transmission systems, comprising the technical basis of ACS.

At the present time, according to reports in the Western press, the large, sophisticated computers used at the highest echelon of command and control in the U.S. armed forces operate at a speed of 100-250 million operations per second. The employment of integrated circuits has resulted in a substantial reduction in the physical size of computers, while simultaneously increasing the capacity of their main memory. An important role in the development of control systems is played by intensive development of so-called minicomputers, which can be used, in particular, for performing operations of local significance on system terminals.

Improvement in the structure of ACS is also promoted by development and manufacture of new I/O and data display devices (Figure 2) [not reproduced]. An important role among such devices is played by display equipment with built-in computing devices, which make it possible to employ this equipment for performing a wide range of tasks previously not performed by such devices: keyboard data input, information output for screen display and printout, performance of functions of programmable computers, including with internal memory (capacity up to 4,000 words), error detection capability, plotting capability, information correction and copying. In the opinion of foreign experts, the modular design of computer hardware which is quite extensively employed today provides flexibility of equipment utilization, tailoring to the functions of specific command and control echelons.

The trend toward expansion of the list of facilities covered by an ACS and their disposition is interlinked with intensive projects being undertaken in the area of further development of data transmission systems. The purpose of these systems in the general case consists in speeding up the collection and distribution of information among their elements, which are located at different geographic points, securing access to central computers for those facilities which lack their own computers and where it is not expedient to provide them with computers, and creation of capabilities of group remote access to central data files.

In the opinion of foreign experts, there has now been defined such a direction in the development of the above systems as employment of data transmission mode with time sharing. In this case large computers with elaborate software, located at EDP centers, will be accessible to a greater number of users located at considerable distances from these centers, and have comparatively simple and inexpensive terminal equipment. At the same time the problem of work-loading computers and efficient utilization of their capabilities will be resolved.

Foreign experts also believe that with the development of networks consisting of a number of large central computers and terminals located at various geographic points, it will be possible to exchange information between computers and individual users within the network, optimally to redistribute computer resources, and to use a collective data bank.

According to reports in the foreign press, creation of data banks presently occupies one of the leading positions among development of information-management systems intended for military headquarters use. They essentially comprise centralized

information-reference systems providing comprehensive solution to various military problems (models). Their specific features consist primarily in the fact that they are oriented toward providing the user precisely with that portion of stored data which was specified in an inquiry.

Another characteristic feature of data banks is separation of the functions of formation, accumulation, and procedure of storing data bases (files) into an independently performed (in comparison with submission of information requests) process, which is only informationally, not functionally linked with programs of applied problems. Descriptions of data in a program and the entire data base are compiled and stored in the computer independently of one another. In addition, there is provided remote collective access to data for a large number of users in conditions of simultaneous solving of computation problems by the same computer. The overall structural arrangement of a typical data bank for computer systems which are being developed is shown in Figure 3 [not reproduced].

Optimal solution to the problem of data bank access for different users involves, in the opinion of foreign experts, provision of maximum convenience for utilizing data contained in data bases and creation of conditions for their reliable protection from the standpoint of preservation and utilization only by authorized persons.

This approach to development of modern computer networks is considered extremely promising by Western experts, and it is to be taken into consideration in developing new means of automating planning processes. For example, a model involving providing intercontinental airlifting of "rapid deployment forces" to various theaters has been developed for U.S. Air Force headquarters. The solution algorithms for problems of planning such airlifts make it possible to examine simultaneously up to 1,000 aircraft, 100 air bases, and approximately 1,500 aircrews. The required number of aircraft is computed on the basis of determining the minimum assumed cost of airlift, including the following expenditures: operating, unforeseen (caused by redirecting aircraft to other routes), contracted payments if civilian aircraft are employed for military airlifts, etc.

Foreign experts attach great importance to the employment of new computer hardware and methods in the process of predicting different variations of air-force combat operations. One example is a mathematical model developed in the United States, which makes it possible to perform a qualitative estimate of the influence of various factors on capability to ensure the survivability of strategic bombers by dispersing them at various airfields to evade attack. U.S. experts believe that this model makes it possible to estimate the effectiveness of various measures and alternative solutions for dispersing bombers to avoid attack in relation to a number of factors. These factors include the possible characteristics of offensive weapons used to deliver attacks, location of airfields, warning time, time required to make bombers combat ready, plus other data which should be stored in the appropriate data banks.

Under present-day conditions air-force headquarters have at their disposal a large quantity of scientific and technical information to ensure the effective and efficient employment of weapons. In connection with this, the U.S. Air Force has developed systems of so-called selective information dissemination, which are viewed by foreign experts as a new method of employing computer hardware for solving problems of information support of various departments and services.

The function of such a system and its data banks consists in continuous communication to interested persons of new data contained in various sources, so that specialists are continuously informed on the latest advances in the field of knowledge of interest to them. Automation of command and control functions at air-force headquarters and connected processes is considered by foreign experts to be an important aspect of intensive utilization of scientific and technological advances for military purposes, in order to increase the capabilities of this branch of the armed forces for performing its assigned missions.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON JOINT NATO PROGRAMS FOR AIR-LAUNCHED MISSILES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 51-55

[Article by S. Zabolotskiy: "Joint Air-Launched Missile Development Programs"]

[Excerpts] In the current, appreciably aggravated international situation, the Soviet Union, supported by all progressive forces throughout the world, is unswervingly pursuing a peace-seeking policy, which was reaffirmed in the documents and resolutions of the 26th CPSU Congress. At the same time statements by NATO leaders and official spokesmen for the new U.S. administration attest to intentions by the imperialist nations to proceed in the direction of further raising the level of military opposition to the socialist countries. Materials published abroad confirm that in the area of military production NATO leaders are devoting increasing attention to expanding cooperative development and manufacture of new weapons and military equipment by the NATO member nations.

In 1977-1978 NATO Council meetings were held at which a long-range armed forces development program for the NATO members was adopted, as well as a decision calling for an annual 3 percent increase in their military budgets. These documents also devoted considerable attention to problems of more effective utilization of the capabilities of the military economy and expenditure of appropriations allocated for military purposes, by expanding the volume of joint research, development and manufacture of new weapons systems.

NATO leaders and Washington officials have stated on numerous occasions in the foreign press that joint military projects (joint development and manufacture or exchange of licenses at the production stage) not only are the shortest road toward achieving military standardization,* but at the same time present a genuine opportunity to achieve maximum efficient utilization of material and manpower resources as well as scientific and technological advances in order to achieve military superiority.

Among the principal objective reasons and economic premises which have dictated the necessity of rapid expansion of the scale of co-production in the military branches

* For a discussion of problems of standardization of weapons and military equipment in the NATO countries, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 10, 1980, pp 12-19 -- Ed.

of industry in the NATO countries, foreign experts note a rise in the technological level of military production, an expansion in the variety of product items, increasing complexity and considerable increase in the cost of modern military hardware, and the impossibility, even for the leading members of the bloc (with the possible exception of the United States), of independently financing the entire diversity of highly specialized and costly projects. To this we should add that for the Western European members of the bloc, in the admission of highly-placed spokesmen for these countries, development of co-production signifies an increase in their capability to compete with the United States in the area of military production. As regards the United States, co-production helps reduce the cost of maintaining idle military-industrial manufacturing capacity by increasing the work-loading of equipment and factory space by participation in joint projects.

Up to the mid-1960's military-industrial cooperation within NATO involved primarily organization in Western Europe of the licensed manufacture of U.S. weapons and combat equipment, with the direct participation and under the supervision of the United States. In military-industrial circles among the Western European NATO partners, this stage was graphically called a "one-way street."

The balance of power in the capitalist world changed at the end of the 1960's and beginning of 1970's. The position of the Western European countries became appreciably stronger in connection with a substantial growth of their economic potential. Now these countries, endeavoring not to miss out on all the benefits and advantages which could accrue to them through international division of labor in the area of military-industrial production, seek to organize cooperation with the United States on principles which are called, in conformity with the terminology they have adopted, a "two-way street." Washington is having difficulty accepting this. As one highly-placed U.S. State Department official was forced to admit, the time when Western Europe totally and unconditionally accepted U.S. military technology and military hardware is a thing of the past. Comparing NATO's multibillion expenditures with a "large pie," he further admitted that each of the partners today wants to have a "piece of the pie," and each seeks to obtain conditions which will ensure it "the largest slice."

The desire to maintain "independence" in the area of military production and duplication of efforts in the development of new weapons cost NATO members dearly. According to U.S. Department of Defense figures, overexpenditure of funds as a result of duplication in designing and manufacturing weapons for the NATO nation armies amounts to 12-15 billion dollars each year, while the combat effectiveness of such parallel models is 30-40 percent less in comparison with that which could be achieved with division of efforts.

The tough demands imposed on new weapons systems, including air-launched tactical missiles, and the high degree of capital intensiveness of this hardware compel NATO leaders on the one hand to plan maximum efficient utilization of air-launched missiles in various conditions of combat operations, and on the other hand to take practical measures to improve the system of organization and management of their development and manufacture. Among the latter, foreign experts place particular emphasis on involvement of NATO member nations in joint projects for the development of aircraft missile hardware, and if possible at the very earliest stages -- during the formulation of specifications and performance requirements.

Conferences of arms directors and the NATO consultative military-industrial group are presently the central entities managing NATO joint military programs.

According to reports in the foreign press, the aircraft and missile industry in the leading NATO countries is presently carrying out as well as planning a number of tactical weapons systems joint development programs, including air-to-ground and air-to-air guided missiles.

The reviewed examples [of the Martel, Skyflash, Sidewinder, AMRAAM and ASRAAM programs in the portion of the article not translated] of cooperation within NATO in the manufacture of tactical air-launched missiles attest to the fact that the plans of the bloc's military-political leadership for the improvement of military production and for increasing its effectiveness, despite the presence of conflicts which are characteristic of the entire capitalist economy, are gradually being implemented. Foreign experts state that as a rule participation in joint programs is advantageous to all partners: although the overall cost of research, development and production usually increases, the expenditures of each participant are substantially below those which would be incurred with independent development. The forms of cooperation among the NATO countries in the development and manufacture of air-launched tactical missiles vary, but preference is given to cooperation within the framework of bilateral or, as a maximum, trilateral agreements, which simplify the system of organization and management of joint programs. Recently development and deepening of co-production within NATO has been accompanied by the formation of large associations of military-industrial companies (consortiums), as well as by increased interdependence of the corresponding branches of military production of the NATO member nations. The weaker partners are becoming increasingly dependent on the stronger ones, while the status of the parties involved in joint projects is determined, as in the past, "by capital" and "by strength."

As is noted in the foreign press, deepening of cooperation between imperialist nations in the military-industrial area is increasing their aggregate military potential, which seriously increases the threat to peace.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON DIESEL SUBMARINES IN NATO NAVIES

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 63-67

[Article by Capt 1st Rank V. Konstantinov: "Modern Diesel-Powered Submarines in the Navies of the European NATO Countries"]

[Text] As is noted by foreign naval experts, the introduction of nuclear propulsion units on submarines greatly influenced the forms and modes of sea warfare. Twenty-five years of experience in building and operating nuclear-powered submarines, however, has shown that their high cost has been holding back many U.S. aggressive NATO bloc partners from the endeavor to increase the power of their navy by adding nuclear submarines. It costs more than 125 million pounds sterling, for example, to build a single British "Trafalger" class nuclear submarine, while the cost is 400 million dollars for a "Los Angeles" class boat (United States). As is attested by the Western press, for the same amount of money we can build as many as six diesel-powered submarines. In addition, servicing, maintenance and training of specialists for nuclear submarines also are very costly.

Equipping submarines with nuclear reactors, with biological shielding and steam-generating units, requires a larger hull. The smallest nuclear submarine displaces 2,600 tons submerged, while the largest has a displacement of 7,000 tons. Nuclear submarine crews range from 60 to 130 men, which also imposes certain limitations on the employment of nuclear submarines in the navies of small countries.

Some foreign experts believe that due to the high cost of nuclear submarines, it is inadvisable to employ them to engage light enemy forces. If one judges according to the criterion of "cost-effectiveness," the principal targets for these submarines include missile and torpedo-armed nuclear submarines, aircraft carriers or large aircraft-carrying ships. Finally, such performance characteristics as high speed (30 knots or more) and considerable depth capability can be utilized only in the open ocean. In operations on the continental shelf and in enclosed sea basins with depths of 180-200 meters, cruising at full speed submerged is dangerous for a nuclear submarine.

Proceeding from these considerations, foreign experts are of the opinion that in the foreseeable future diesel submarines will remain on the roster of the navies of the majority of the European NATO countries. They are assigned the following missions: to destroy enemy submarines, surface warships and vessels at sea and

when leaving bases and ports, as well as on the approaches to friendly bases and ports; to hinder and impede amphibious landing operations; to plant mines; to conduct reconnaissance.

To perform these missions, diesel submarines should satisfy the following requirements:

- achieve a sufficiently high speed submerged for a short period of time (usually up to 1 hour) to intercept enemy warships or to evade enemy ASW forces;

- operate with a sufficiently low noise level in order not to give away the submarine's presence;

- have considerable endurance submerged, in order to reduce the possibility of detection by ASW aircraft and ship radars;

- carry modern weapons with a high kill probability on high-speed targets, as well as detection gear providing the capability to identify and attack a target before the enemy can discover and classify the submarine.

Added to the demands enumerated above are economic requirements connected with building and operating a submarine. It is believed that one way to reduce operating costs is to reduce the size of the crew by boosting the level of automation. But this is possible only to certain limits, since it leads to increased cost of equipment and greater expenditures on training qualified specialists to operate and maintain a submarine.

According to "Jane's," the naval forces of the European members of the aggressive NATO bloc contain approximately 120 diesel submarines of various classes. They include, alongside obsolete boats (including former U.S. submarines), modern submarines built in the 1970's or more recently. Specialists in a number of countries, such as the FRG, Italy, and Great Britain, are continuing to work on new designs.

The foreign press lists among modern diesel submarines which best satisfy the above-mentioned demands West German Design 209, which is being built for export by Howaldswerke Deutsche Werft AG, French submarines of the "Agosta" class, and Italian boats of the "Sauro" class (see color plate) [not reproduced]. In spite of specific individual features, they all possess similar specifications and performance characteristics: displacement surfaced, 1,100-1,500 tons; single-shaft diesel-electric propulsion units; all torpedo tubes are positioned forward; speed submerged approximately 20 knots; operating depth not less than 250 meters; endurance 45-50 days; crew complement not more than 50.

We know that the difference between displacement submerged and surfaced comprises the reserve buoyancy. It is determined by the volume of water which must be taken into the main ballast tanks for a submarine to be able to submerge. Reserve buoyancy determines the size of a submarine's hull and the time required for submerging and surfacing. Reducing reserve buoyancy makes control of a submarine more difficult and diminishes its survivability. For the submarines listed above, reserve buoyancy ranges from 11 (Design 209 and "Sauro") to 19 percent ("Agosta").

Hull length increases in proportion to displacement (from 55 meters for Design 209 to 67.5 meters for the "Agosta" class). Beam runs 6.6-6.8 meters respectively.

Such a proportional change in hull dimensions in relation to displacement reflects the fact that a modern hull shape with hydrodynamic lines ensuring good streamline flow submerged was selected for all these submarines. The tail fin assembly is cruciform and positioned immediately forward of the screw propeller. Additional planes are positioned either at the bow end (209, "Agosta") or on the conning tower ("Sauro," Figure 1) [not reproduced].

Submarine submerging and surfacing systems consist of five tanks -- two at the bow and stern and one amidships. Water is expelled from these tanks either by blowing in high-pressure air or by means of bilge pumps. A special tank located inside the pressure hull is employed to hold a submarine at the desired depth without using control surfaces and engines. Water is forced into (expelled from) this tank with the aid of a double-acting pump operated from the control center.

As is noted in the foreign press, the noise generated by these submarines when traveling submerged at low speed does not exceed, at a distance of several thousand meters, the natural noise level of the sea. In the opinion of foreign naval experts, they are superior to nuclear submarines in this respect. When the diesel engines are operating, however (surfaced or submerged operation), the noise level increases appreciably due to hull vibrations.

In designing modern diesel submarines, their construction and operation, a number of special measures are specified to combat noise. A proper shape is selected for the hull and screw propeller. The stern is reinforced in order to reduce hull vibration. Equipment and machinery which causes vibration is placed on shock-absorbing mounts. All spaces containing noise sources are covered with special sound-absorbing and insulating materials. Flexible couplings are used between pumps and lines, and lines are isolated from the hull. In addition, 36 hydrophones are mounted at various points on the hull of "Agosta" class submarines for noise monitoring, to measure the level of noise generation and to determine its source, if noise exceeds the allowable level.

Modern diesel submarines are powered by a single-shaft propulsion unit, which consists of several high-rpm diesel generators, a main electric propulsion motor (a low-rpm dual-armature DC motor), storage batteries, auxiliary systems and equipment. diesel engines power the generators, supply electric power to the main propulsion unit and auxiliary equipment, and charge the storage batteries. Power loss due to double conversion of energy is inevitable, but because there are no couplings and no reduction gear, the propulsion unit is lighter in weight, smaller in size, and less noisy. With this arrangement the propulsion unit is employed in three principal modes: cruise submerged (diesels shut down, main propulsion unit receives power from storage batteries); cruise surfaced or submerged with snorkel (diesels operate, main propulsion unit powered by generators); storage battery charging (the submarine travels surfaced or submerged with snorkel, with part of the power produced by the diesel generators going to the main propulsion unit, while the remainder is used to charge the batteries). Employment of a single shaft diminishes a submarine's survivability and maneuverability, but makes it possible to employ a large-diameter low-rpm screw propeller, which generates less noise, and to utilize

to a greater degree the advantages of a hydrodynamic hull shape. Submarines carry diesel generators and main propulsion motors as follows: Design 209 -- four and one respectively (the electric motor puts out 5000 kw or 6700 horsepower); "Sauro" class -- three and one (3140 kw, 4200 horsepower); "Agosta" class -- two and one (3400 kw, or 4600 horsepower). The latter also carries a 23 kw (30 horsepower) auxiliary electric motor, which is used for silent maneuvering in position.

The capabilities of modern diesel submarines are determined in large measure by the high quality of storage batteries, the capacity of which has been increased by employing tubular electrodes (a gain of about 20 percent). "Sauro" class boats, for example, contain two groups of lead-acid storage batteries (148 cells in each), with a total capacity of 6500 amp-hours.

Such banks of storage batteries provide a submarine with the capability to cruise submerged at low speed for an extended period of time, and to travel at maximum speed for a brief period, as a rule up to 1 hour: up to 22 knots for Design 209 submarines, and 19-20 knots for "Agosta" and "Sauro" class boats. Range runs 350-400 miles at speeds of 3.5-4 knots. Thus they can travel at least 96 hours without recharging batteries.

With periodic use of a snorkel device, range is determined by fuel supply (50-150 tons), and usually runs to 9-12 thousand miles at a speed of 9-11 knots.

Endurance, taking food and water supply into consideration, is 50 days for Design 209 submarines, and 45 days for boats of the "Agosta" and "Sauro" classes.

Diesel submarines are inferior to nuclear-powered submarines in diving depth, which depends on structural materials, hull shape and size. While nuclear submarines can dive to 500 meters, diesel boats can dive to 250 meters (with a safety factor of 2).

Maneuverability and controllability are also important characteristics of modern diesel submarines. Foreign experts believe that they are close to those figures appearing in the press for the Swedish Design 43 submarine: a 360° turn with a 230 meter diameter of gyration is accomplished in 5 minutes at a speed of 7 knots and in 2.5 minutes at a speed of 15 knots.

A number of NATO countries are working on the development of antiship missiles (the Harpoon antiship missile has already been developed and is becoming operational with the U.S. Navy) but, as is reported in the foreign press, nuclear submarines will be the first to be equipped with this missile. One of the reasons for this decision is the fact that a submarine gives away its location when it fires a missile. A nuclear submarine, traveling at a speed of approximately 30 knots, can evade enemy warships which have detected it, while it is more difficult for a diesel submarine to escape. At the same time torpedoes, carrying a 250-300 kg explosive warhead, traveling at a speed of 40-45 knots and with an effective range of 10-15 thousand meters, and equipped with acoustic homing systems or wire-guided, are today still considered effective weapons.

The following demands are imposed on modern submarine weapons: torpedoes should hit a surface or submerged target on the first salvo and from any firing depth. Therefore dual-mission torpedoes, designed to sink enemy surface units and

submarines (the West German SUT, for example), are being increasingly more extensively employed today.

The submarines discussed above differ from one another in their weapons complement: the Design 209 submarine has 8 533 mm torpedo tubes with torpedoes, plus 6 spare torpedoes; the "Agosta" class has 4 (550 mm) and 16 respectively, and the "Sauro" class -- 6 (533 mm) and 10. The number of weapons on board is determined both by design features and by operational-tactical missions. Eight torpedo tubes ready to fire enable a submarine to operate in areas where there is a high probability of large enemy surface forces. It is advisable to employ a submarine with four tubes but 16 spare torpedoes, in the opinion of Western experts, on extended patrols on sea lines of communication.

Torpedo tubes employed by modern diesel submarines are usually capable of firing torpedoes under their own power, which reduces probability of submarine detection during an attack.

Experts consider arming submarines with antiaircraft missile systems to engage primarily ASW helicopters to be a promising trend in increasing the combat capabilities of submarines.

The submarine classes examined above do not fully encompass all directions of development of modern submarine engineering in the Western European countries. The FRG, for example, commissioned 18 submarines of Design 206 in 1973-1975; these submarines have a surfaced displacement of 450 tons and are suited for operations in the North Sea and the Baltic, which are characterized by complex hydrologic conditions and shallow depths. Great Britain has designed a large ocean-service submarine with a surfaced displacement of 2,400 tons (Figure 2) [not reproduced]. Nevertheless many foreign observers agree that submarines of Design 209, the "Agosta" and "Sauro" classes reflect in large measure trends presently existing in the area of design and construction of diesel submarines for the navies of the European NATO countries.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON ORGANIZATION OF PRESCRIBED MAINTENANCE ON U.S. SHIPS

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 67-70

[Article by Engr-Capt 1st Rank M. Tsiporukha: "Organization of Technical Servicing in the U.S. Navy"]

[Text] In recent years weapons systems in the U.S. Navy have become steadily more complex, and the cost of servicing and maintaining these systems has been steadily increasing, today comprising up to one third of the cost of ship upkeep and maintenance.

For some time now the Navy has been improving the system of ship and aircraft servicing and maintenance. A standardized system, for example, was fully adopted at the end of the 1960's, consisting of a scheduled maintenance subsystem (provides on all ships the most expedient procedure and sequence of planning and performance of equipment servicing and maintenance operations) and a data collection subsystem.

The principal document of the first subsystem is a manual prepared for every ship design.

The first part of the manual is called "Technical Guide." It lists the ship's weapons and equipment, specifying the extent of all scheduled maintenance inspections. It also specifies the number of personnel required and the required level of personnel qualifications for performance of each type of maintenance inspection, standard figures on labor requirements and job duration, as well as safety precautions and procedures. It is prepared on the working assumption that shipboard specialists will be able to perform all prescribed maintenance procedures, using only standard issue tools, instruments and accessories contained in sets of spare parts, instruments and accessories. One can also easily find in this manual the page containing a description of prescribed servicing and maintenance procedures on any piece of machinery or equipment.

The second part is entitled "Inspection and Maintenance Schedule." It contains approximate lists of inspections and maintenance procedures in each quarter of the four to five-year period between factory overhauls. On the basis of this data the department head draws up a quarterly schedule, consisting of 13 columns (one for each week). It specifies the month and week of performance of inspection procedures on each unit of machinery and equipment. After these procedures have been performed,

the department head crosses the appropriate column off the schedule. If for any reason an inspection was not performed, it is transferred to the following quarter. This schedule is the basis for weekly planning.

At the beginning of the week noncommissioned officers draw up a week's servicing and maintenance schedule on printed blank forms. On this schedule one indicates opposite the designation of the machinery or mechanism the specific day a given maintenance inspection is to be performed, accompanied by the name of the specialist who is to perform the inspection. Also added is the number of the "maintenance card" of the equipment scheduled for inspection. The week's schedule is posted in the appropriate compartment right next to the machinery or equipment to which it refers.

The small (pocket-size) "maintenance cards" contain a list and timetable of prescribed maintenance operations for a given piece of equipment, indicate the quantity and location on board ship of the required tools, spare parts, materials and documentation, as well as data on servicing and maintenance procedures and safety precautions. A complete set of these cards, for all machinery, equipment and systems in each room or compartment, is kept in a special container next to the work schedule board, and a spare set is kept in the department office. At the beginning of the week the specialists determine what equipment and systems they are to inspect or repair according to the week's schedule, select from the container the requisite "maintenance cards," study their content, and on the designated day proceed with their duties.

On many ships maintenance check boards are set up at damage control headquarters and in the engineering department, indicating all the principal engineering department machinery, equipment and systems. Those which are to be inspected or which have already been inspected in the current quarter are indicated with special colored markers.

In the U.S. Navy the scheduled maintenance manual and "maintenance cards" for the lead ship of a class are prepared while it is in construction. After it is commissioned, a specially appointed team of officers from surface forces headquarters of the fleet to which it was assigned, together with representatives of the naval logistics support command, check the above-mentioned documents, focusing particular attention on the capability of personnel to perform all inspections on the specified timetable (from the standpoint of time and labor requirements). After final revision, the documents are officially adopted for the ships of the given class.

All naval ships carry standard primary report forms on prescribed maintenance procedures performed by personnel. The first form is a report on servicing and maintenance procedures performed by personnel; the second contains information on jobs which cannot be performed due to the fact that personnel are inadequately prepared or due to a lack of spare parts, equipment and documents; the third is a list of deferred maintenance operations. The designation of the equipment in question, manufacturer, serial number, the time a problem or malfunction was discovered and its nature, as well as much other information is entered onto the primary report form not in plain language but with the aid of alphanumeric codes. Therefore a minimum number of words is required to fill them out. In designing these forms an effort was made primarily to ensure that report materials on

performance of maintenance procedures and expended spare parts, equipment and accessories are prepared only once, as well as requests for servicing and maintenance which cannot be performed due to a lack of qualified specialists or needed spare parts and materials. This information does not appear in subsequent reports, which eliminates the possibility of duplication in communicating information and reduces time expended on reports and recordkeeping.

Reports are forwarded from naval ships to maintenance automated data processing facilities, located on the tenders and maintenance vessels to which the ships are assigned. Similar facilities have been organized on board aircraft carriers. They forward processed data in the form of punched cards to the navy's shore maintenance support center. Its main function is to collect and synthesize data on servicing and maintenance of U.S. Navy ship and aircraft equipment, to determine resources for maintaining the required level of ship combat readiness by performance of servicing and maintenance, and to communicate to supply agencies of the navy's logistics command requests for the needed quantity of spare parts and materials and information on extent of repair and maintenance operations which should be performed by tenders, maintenance vessels, naval shipyards and private companies.

It was noted in the U.S. press that adoption of the above-described servicing and maintenance system has failed to provide an adequate level of combat readiness of naval ships. The synthesized data submitted to the systems command responsible for organization of maintenance are loaded down with material of little value. Part of the necessary information is not forwarded to the processing centers due to a lack of discipline on the part of ship personnel, and information still takes too long to move through the system.

Foreign military experts are of the opinion that another shortcoming of the data collection subsystem is the fact that analysis of expenditure of spare parts and materials is not yet providing complete information for putting together optimal sets of spare parts, tools and accessories. It is reported that on the ships of many development projects 92 percent of the spare parts item designations in the sets of spare parts, tools and accessories remain unused during the entire three years between factory overhauls. At the same time two thirds of spare parts requirements cannot be met from shipboard sets of spare parts, tools and accessories, and spare parts are obtained from tenders and shore depots. Experience has shown that this requires up to 10 days if they are delivered to the ships of task forces on patrol in remote regions.

These and other factors compel the U.S. Navy constantly to seek ways to improve the servicing and maintenance system. Beginning in 1972, for example, special studies were conducted on board "Knox" class frigates to evaluate the existing system, with the aim of determining its deficiencies and specifying ways to improve it. Experts determine that training of personnel performing servicing and maintenance was clearly inadequate. In addition, in many instances gear and equipment are of deficient design, are assigned to different shipboard subunits, and are utilized inefficiently. It was reported that instructions on performance of servicing and maintenance do not always precisely specify the procedure and sequence of performance of maintenance operations, while naval ships lack a centralized system of maintenance management. It was also noted that servicing and maintenance of hull

structures is extremely difficult: considerable expenditures of manual labor and time are required.

As a result, proposals were drafted on improving servicing procedures, toward improving organization of utilization and training of personnel, adoption of a management system, and development of optimal design and construction of gear and equipment.

The examining team's report indicated the advisability of examining the possibility of performing service and maintenance procedures for the entire ship by the personnel of a specialized shipboard subunit, which in its opinion would do a faster and more efficient job than with the existing system. It was suggested that inspections and maintenance procedures be performed on all equipment of the same type (electric motors, for example) in a ship's compartment or space, regardless of the department to which they belonged. And finally, a conclusion was drawn that it was necessary to improve the servicing and maintenance information collection subsystem.

A specialized 8-man team was set up on board a "Knox" class frigate on the basis of all the conclusions reached by the examining group, and a new information collection subsystem was tested. Special information cards were made up for each group of jobs, indicating the item to receive maintenance, its location on the ship, scheduled labor requirements, required equipment and tools, precautionary measures, principal maintenance procedures, as well as information on what data should be entered onto the card following performance of servicing and maintenance. Reference materials required for performing servicing procedures were specified on the back of the card.

At the beginning of each week the leader of the maintenance team determined the list of maintenance operations for the week, selected information cards and distributed them among the team's specialists. After the task was accomplished, they would fill in the back of the card with information on performed procedures, the actual time work began and ended, actual labor requirements in man-hours, and would then return it to the team leader, who would revise the schedule on the basis of the obtained data.

Thirteen special sets of training aids were prepared for the principal groups of maintenance operations, for training personnel under shipboard conditions. Each contained a set of slides, which reproduced all stages in the performance of servicing and maintenance, as well as a tape with text. In addition, instructions on servicing and maintenance of machinery, equipment and systems, manuals on use of tools and equipment in performing maintenance procedures, and manuals prepared by shipboard equipment manufacturers were reworked.

The investigating team tested and checked many kinds of already adopted new tools, equipment and devices, determined and recommended the most suitable and appropriate of these for universal employment on naval ships.

In the course of the experiment the effectiveness of new organizational forms of performing servicing and maintenance, as well as the quality of technical devices and instruments were quantitatively evaluated. For this purpose, actual labor expenditures and time required to perform the principal maintenance operations were measured on board ship before and after their adoption and employment of new

equipment, as well as on a control ship of the same class (where the old system of performing maintenance procedures continued to be used). In addition, with the aid of special tests they evaluated the level of knowledge and skills of personnel in the area of servicing and maintenance, before and after additional training. Analysis of the obtained data indicated that the labor requirements of maintenance procedures were reduced by 20-30 percent after all the above listed measures had been performed.

In 1978 the decision was made to expand such investigations, conducting them up to 1980 on board several "Knox" class frigates as well as on board "Oliver H. Perry" class guided missile frigates and "Newport" class tank landing ships. After this it was proposed that an improved servicing and maintenance system, employing ship's crew personnel, be adopted for all types of warships.

In addition to general servicing and maintenance system improvement programs applying to all ships, the U.S. Navy is elaborating particular programs for especially important and expensive vessels, such as nuclear submarines and aircraft carriers. At the beginning of the 1970's the Navy became concerned by deterioration in the condition of aircraft carrier equipment and by an increase in the number of accidents and equipment breakdowns on board carriers. In connection with this an evaluation was made of the equipment and operational reliability of 25 main shipboard systems, the condition of which basically determined the combat readiness of an aircraft carrier, as well as the capability of carrier-based aircraft to perform their assigned missions. Statistical data on failure of the components of these systems made it possible to study with the aid of a computer approximately 100 different cycles of their combined functioning with each system at a different degree of readiness. It was established that the probability of accomplishment of required daily servicing and maintenance of 110 aircraft by all 25 systems together was 76 percent, a figure which is considered to meet requirements on ensuring an adequate level of aircraft carrier combat readiness. These points served as initial data for drawing up a new schedule for servicing and maintenance performed by ship personnel.

The schedule of servicing and maintenance for a five-year period between overhauls includes approximately 400 different types of prescribed procedures connected with inspection, testing and adjustment of devices, mechanisms, and systems. Instructions were revised for all of them, the volume of technical documentation was reviewed, and a special program was formulated for teaching personnel new work techniques and methods. A characteristic feature of the new plan is an increase in length of equipment service between scheduled inspections by employing new means of diagnosing the condition of equipment without disassembling it. The revised instructions more accurately specified the procedure of performing pre- and post-inspection operational testing of all 25 principal aircraft carrier systems.

The new servicing and maintenance schedule includes daily checking of approximately 100 basic units of equipment of these 25 systems by specially trained personnel, in the process of which these personnel obtain advance warning of malfunctions and ensure that the carrier can perform its combat missions. One part of the inspection schedule calls for checking and servicing the pipe fittings of all systems and checking the condition of gauges, particularly pressure gauges and temperature gauges of all types. A method was developed for accelerated inspection and spotting of defects in these components of shipboard equipment.

Also elaborated were algorithms for preparing the quarterly inspection schedule, which is drawn up with the aid of a shipboard computer, on the basis of data on the actual condition of equipment and nature of defects revealed during regular scheduled equipment inspections. Thus servicing and maintenance planning becomes flexible and makes it possible to consider the necessity of more frequent inspection of less reliable equipment. The quarterly inspection schedule generated by the computer consists of a list of equipment to be inspected, with indication of optimal inspection dates and servicing recommendations. In preparing new documents on organization of servicing and maintenance on board helicopters, they considered the possibility of incorporating them into the maintenance reporting system currently in use in the U.S. Navy, a system which was mentioned above.

Recently the U.S. Navy has been adopting a new step-by-step method of repair and maintenance of amphibious landing ships, cargo ships and transports. According to this method, each ship will be docked each year and undergo two to three months of shipyard maintenance. It is believed that this will make it possible to increase the combat readiness of naval ships, extend time on combat control, and simplify the existing system of servicing, maintenance and repair by shipboard personnel.

The above information on organization of servicing and maintenance in the U.S. Navy attests to an endeavor on the part of U.S. Navy officials to maintain a high degree of combat readiness of ships and aircraft for carrying out the aggressive schemes of U.S. imperialism.

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PERCEPTIONS, VIEWS, COMMENTS

COMMENTS ON SUEZ CANAL RECONSTRUCTION

Moscow ZARUBEZHNOYE VOYENNOYE OBOZRENIYE in Russian No 10, Oct 81 (signed to press 14 Oct 81) pp 70-71

[Article by Lt Col A. Luk'yanov: "Controlling Ship Traffic on the Suez Canal"]

[Text] Egypt's military and political leadership, with U.S. financial and technical assistance, is endeavoring to hasten completion of renovation of the Suez Canal.*

As a result of these measures, as is noted in the Western press, canal traffic capacity is to be almost doubled, and favorable conditions created for maneuver of U.S. naval forces in the Mediterranean and the Indian Ocean. In addition, there will be a substantial increase in capabilities to transport crude oil and refined products from the Persian Gulf region to the NATO countries.

With the aim of increasing traffic capacity and achieving efficient canal utilization, primarily in the interests of the United States and the other leading capitalist countries, as well as to improve safety of navigation, the Suez Canal administration decided to set up a new automated system of monitoring and controlling civilian and military ship traffic.

In October 1978 a contract was signed between the canal administration and a U.S. corporation, Cutler-Hammers Instruments and Systems Group, calling for the design, delivery and installation of equipment for this system, at a cost of approximately 18 million dollars (16 million of this offered by the United States as a long-term loan). Contracts for the job were distributed among three U.S. companies: AIL, General Electric, and Megapulse. Work on this project began at the end of 1978.

The new system, called VTMS (Vessel Traffic Management System), is designed to ensure reliable monitoring of canal traffic and to improve safety of navigation for large-tonnage vessels. The system is also to help accomplish systematized collection and storage of information on the civilian and military vessels passing through the canal, with this data subsequently utilized by the canal operations service and management.

* For more detail on Suez Canal renovation, see ZARUBEZHNOYE VOYENNOYE OBOZRENIYE, No 5, 1981, page 24 -- Ed.

The Egyptian press reported that the system is based on a similar navigation system previously developed by AIL under contract with the U.S. Coast Guard (system equipment is operating in the ports of San Francisco, Houston, New York, and others).

According to information in the Western press, the VTMS system includes the following: radars to track the movement of ships on the approaches to and along the canal, coupled with data processing and transmission equipment; shipboard LORAN-C system equipment to determine the precise location of ships; a facility for collection and processing of incoming information, with a computer system and devices for processing and displaying data on ship traffic along the canal; a network of internal service communication links.

The system uses U.S.-built radars with a range of up to 35 km. Two of these, which will serve the terminal portions of the canal, are being installed in the area of Port Fuad and Port Taufiq (see map) [not reproduced]. A third, serving the middle part of the canal, will be set up in the vicinity of Fanara. It is planned to operate the first two radars from traffic control centers set up in the ports of Port Said and Suez. The third radar is being fitted with remote control devices connected by microwave relay link to the main traffic control center in Ismailia.

LORAN-C receiver and display units, which will be installed on board vessels at the convoy forming points, to be carried by them during canal passage, are to be used for obtaining complete data on a vessel's actual location, its speed, plus other information. In the estimate of foreign experts, this equipment will make it possible to determine the location of vessels with a maximum error of 15 meters.

It is planned to maintain an information collection and processing team at the main traffic control center, to handle information coming in from all traffic monitoring and control centers along the canal. After processing by computer, the obtained data will be displayed on 8 color TV monitors, and if vessels fail to observe the established canal passage procedure (speed or assigned course), the duty operator can take necessary measures. Simultaneously the port operations service can obtain via the main traffic control center requisite additional information on the next convoy passing through the canal on individual vessels, as well as on the pilots. Toward this end a card file on 20,000 vessels and 500 pilots is to be established for the information collection and processing team.

According to reports in the foreign press, the traffic control and monitoring system for civilian and military vessels passing through the Suez Canal will provide radio communications with a capacity of 50 standard voice channels, consisting of several separate radio nets. It is intended both for ship traffic control and for ensuring safety of drainage operations without interrupting ship traffic. Specific channels are assigned to the pilots, who will be furnished with portable radio sets manufactured by General Electric. Communications between traffic monitoring centers and the main traffic control center will be by cable lines.

Up to the present time a 400-room building, with a 13-story tower, which will contain the Suez Canal administration, has been built in the town of Ismailia for the main traffic control center.

The new system is scheduled to go into operation simultaneously with completion of renovation of the Suez Canal -- toward the end of 1984.

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